

CREATIVITY AND LINGUISTIC THEORY

A study of the creative aspect of language

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Submitted in fulfilment of the requirements  
for the degree of

Master of Arts

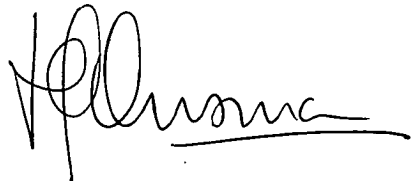
University of Tasmania

February, 1982.

*to be conferred  
1984*

## STATEMENT

This thesis contains no material which has been accepted for the award of any other higher degree or graduate diploma in any university, and to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of this thesis.

A handwritten signature in black ink, appearing to read 'H. J. ONSMAN', with a horizontal line drawn underneath the name.

H. J. ONSMAN,  
January, 1982.

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## ABSTRACT

### CREATIVITY AND LINGUISTIC THEORY

The notion of creativity has been used by many theorists to describe that aspect of language which enables a language user to use language in a novel way or to devise new forms of language. Chomsky especially uses the "creative aspect of language use" to describe the innovative uses of language.

This study explores the notion of creativity in linguistic theory. An examination is made of its application by Chomsky, from his earliest work on. At least two different notions are distinguishable: rule-governed creativity and rule-changing creativity. The former is shown to be a formal property of the syntactic system and creative in a mechanical sense only. The latter is an aspect of the semantic system, but is left largely unexplored by Chomsky.

An assessment is made of comments by other theorists on the notion of creativity and these are related to the Chomskian analysis. The distinction between

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rule-governed and rule-changing creativity is confirmed. Den Ouden (1975) is criticised in some detail as a superficial treatment of the topic. The semantic nature of creativity in language is confirmed.

The theory of metaphor is treated as an example of creativity in language. Metaphor is clearly a meaning-based language device and has traditionally been described as a creative mechanism. The range of metaphor theories is reviewed and a synthesis is attempted, based on the Mooij (1976) model, with some assistance from Ricoeur (1978).

The psycho-linguistic literature on metaphor is reviewed in the light of this model, and a working description derived, based on Ortony's (1979) concept of non-literal similarity. This description implies that there exists a capacity in language to move beyond the literal rules of syntax and semantics, as described in standard linguistic theory, and still produce a comprehensible utterance.

Therefore, the existing models of language are based on rules of syntax and semantics which are too restrictive, and there may exist a supra syntactic-semantic device which enables comprehension of syntactically or semantically anomalous utterances. This is the creative capacity of language.

The work of De Beaugrande is considered as an attempt to build this creative capacity into the formal description of language. Language is characterised as an intersystem in which various systems of rules and elements interact. This interaction produces meaning-bearing texts. The rules and elements are subject to modification; only the meaning function of the text is immutable. Creativity, then, is the formal capacity for intersystem modification.

## 1. INTRODUCTION.

The scientific study of language is, in part, an attempt to sort fact from belief. Linguists are never fully successful in this enterprise for they bring to their scholarship a host of assumptions, not all of which are exorcised by the rigour of their methodologies.

The present study is an attempt to face one of the assumptions which linguists frequently make about the nature of language. The creativity of language is a broad and undefined description of an aspect of language to which many linguists have paid homage.

Max Black (1968) has described this aspect of language in the following way:

"Users of language are free to invent new words, to invest old words with new meanings, to modify established syntactical patterns, to use the rhetorical devices of metaphor and irony, and to modify the stereotyped and routine ideas crystallized in the linguistic system..... For all its fixity of structure at any given time, a living language has an inherent plasticity and capacity for growth and adaptation " (p.65).

The significance of this description is the concern of the present study.

The importance attached to the notion of the creativity of language varies widely, as does the part it plays in various theories of language. Along with Chomsky, many have relegated it to the fuzzy edges of linguistic theory, whilst acknowledging the phrase and, implicitly, the language mechanism it points to.

The aim of the present study is to make explicit the notion of the creativity of language. Unless we are able to accurately describe the notion, it ought to be laid aside. In fact it may be meaningless, but at least let us make that clear.

There is no pressing reason, however, to believe that the notion is meaningless. Certainly, its presence in linguistic discussion testifies to the strong possibility that the creativity of language is an essential, yet undefined, aspect of language. It seems worthy of further investigation.

The present investigation has been structured in a particular way. Noam Chomsky has been, and is, a crucial figure in linguistic study in this century.



He has made a monumental contribution to the theory of language. From his first public contribution (Chomsky, 1957), he has acknowledged the creative aspect of language use. In addition, he has used the word 'creativity' to describe various formal properties of the structure of language. It seems appropriate to commence the investigation with the contribution made by Chomsky. This is the concern of Chapter Two,

There are other linguists who have made comment on the notion of creativity. In fact, most theorists of language have used the concept, although, of course, they have done so in many different ways and for different reasons. For instance, the contribution of Den Ouden has centred on the notion of creativity. These various contributions are discussed in Chapter Three.

Creativity in language has often been taken to relate intimately to the capacity of language to mean. Novel ways of meaning have often been described as creative and probably the most significant example of this is figurative language. One figure in particular, metaphor, has traditionally been linked to creativity in expression. For this reason, it seems appropriate to explore precisely what metaphor is. This is the topic of Chapter Four,

How does metaphor relate to language and, specifically, how does it relate to the creativity of language? This is discussed in Chapter Five.

Finally, what does the notion of creativity in language mean? In what sense is language creative and how can this notion be formalised and incorporated into the description of language? How does the formal description of language change in the light of the creative capacity of language? These questions are confronted in Chapter Six.

This study is an investigation and a discussion. Although much is explored, only modest discoveries are claimed. However, if the exploration has contributed to bringing the creative capacity of language from the shadows of linguistic study, then the underlying purpose of the study has been achieved.

## 2. THE CREATIVE ASPECT OF LANGUAGE.

The earliest references by Chomsky to the "creative aspect of language" occur in the first chapter of *Current Issues in Linguistic Theory* (1964). Chomsky refers to what he describes as the "central fact", with which any theory of language must concern itself:

"A mature speaker can produce a new sentence of his language on the appropriate occasion, and other speakers can understand it immediately, though it is equally new to them. Most of our linguistic experience, both as speakers and hearers, is with new sentences; once we have mastered a language, the class of sentences with which we can operate fluently and without difficulty or hesitation is so vast that for all practical purposes (and obviously, for all theoretical purposes) we may regard it as infinite" (p.7).

This encapsulates two concepts to which Chomsky will return. The first may be called the infinity principle of language; it suggests that any language is capable of producing an infinite number of sentences. The argument is here confined to sentences and implies that "new" means different<sup>↓</sup> from any other sentence in the

combination of sentence elements. This concept belongs to the competence of a user of language, in the sense that it is a part of what the language is capable of doing. It is a formal property of a grammar.

The second concept relates to the performance of a user of language in that a speaker can produce a particular sentence which is different from all other sentences which he or anyone else has ever produced. This is an empirical fact since it is capable of falsification. It is also the evidence which leads to the postulation that language is, in fact, capable of repeating this particular performance (the production of a new sentence) infinitely. But this postulation (that is, the infinity aspect of language) depends for its strength upon a theory of language, rather than upon a single empirical fact.

Chomsky follows the establishment of this central fact by pointing out a long tradition of argumentation which refers to the "creative aspect of language". He notes that Descartes and Cordemoy relied upon language and its creative aspect as crucial evidence for their theory that man, and man alone, can be distinguished from all other animals, thus pronouncing man unique in the world as a being not programmed to live within the strictures of a pre-determined "nature", but possessing a creative freedom.

Chomsky continues his historical investigation of how the notion of "creativity" was treated by commenting upon two traditions of nineteenth-century linguistics. The Cartesian tradition was carried to its greatest height with von Humboldt, whilst the rise of the empiricist (or the "taxonomic-behaviourist" - p.25) tradition is linked to Whitney and de Saussure. Both traditions are criticised by Chomsky for not clarifying their use of creativity, particularly in failing to distinguish between "rule-governed creativity" and "rule-changing creativity". Chomsky describes the former as:

"the kind of 'creativity' that leaves the language entirely unchanged (as in the production - and understanding - of new sentences, an activity in which the adult is constantly engaged)". (p. 22);

and the latter as:

"the kind that actually changes the set of grammatical rules (e.g. analogic change)" (p.22).

He suggests that this distinction is fundamental, and that it is only since the application of logic and mathematics to linguistics that the conceptual tools for dealing with rule-governed creativity have been available. In other words, the distinction could not be drawn until generative grammar had produced the viewpoint that language is essentially a rule-governed activity.

It is evident that Chomsky has somewhat expanded the original notion of the creative aspect of language. It has now been classified into rule-governed creativity and rule-changing creativity. Rule-governed creativity includes the empirical fact of the production of new sentences and the theoretical fact of the infinite ability of language to produce new sentences.

However, it must be noted that Chomsky frequently intends only rule-governed creativity when he uses the phrase "the creative aspect of language". He does not delve much further into rule-changing creativity, and his final reference to the issue in *Current Issues* reinforces the view that he is really concerned only with rule-governed creativity:

"the 'creative' aspect of language use ... is the ability to form and understand previously unheard sentences" (p.111).

In *Aspects of the Theory of Syntax* (1965), Chomsky confirms the approach he had taken in earlier work, that is, to consider the creative aspect of language use as an *a priori* principle, inherent in the grammar of a language and used by the speaker almost constantly. It is becoming a philosophical statement, repeated constantly and invariably

through the use of the phrase "creative aspect of language use", described as a fundamental fact of language, but largely left unexplained. It is "there"; the theory acknowledges it but does little more than that.

In *Aspects*, Chomsky adds a new description to the creative aspect of language, borrowed explicitly from von Humboldt:

"His view is that a language 'makes infinite use of finite means' and that its grammar must describe the processes that make this possible" (p.v.).

Again, the description refers only to the formal property of grammar (i.e. it is rule-governed creativity).

In his introductory comments Chomsky refers again to the Cartesian tradition of philosophical grammar:

"It was clearly understood that one of the qualities that all languages have in common is their 'creative' aspect. Thus, an essential property of language is that it provides the means for expressing indefinitely many thoughts and for reacting appropriately in an indefinite range of new situations" (p.6).

Although this is largely a restatement of the earlier position, it does make explicit that this quality of creativity is part of universal grammar.

Chomsky is well aware of the limitations of philosophical grammar and, despite the insights the tradition provided, the lack of the technical descriptions which mathematics brought to linguistics, prevented it from detailing these insights:

"Although it was well understood that linguistic processes are in some sense 'creative', the technical devices for expressing a system of recursive processes were simply not available until much more recently. In fact, a real understanding of how a language can (in Humboldt's words) 'make infinite use of finite means' has developed only within the last thirty years.... [Now we are able] to attempt an explicit formulation of the 'creative' processes of language." (p.8).

It is apparent that creativity is here being limited yet further to the formal property of a grammar (through universal grammar) to create new combinations out of existing components through such devices as recursive loops. It is equally apparent from *Aspects* that no such "explicit formulation" was attempted.



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The Cartesian tradition of philosophical grammar is more fully explored in *Cartesian Linguistics* (1966). In this essay Chomsky devotes a chapter to the creative aspect of language use. It is to be expected that the arguments presented relate largely to philosophical insights rather than to linguistic hypotheses; but Chomsky admits that his concern is to discover what these philosophers said about language and how it compares to the theoretical foundations of generative grammar. In other words, it is a retrospective rediscovery of some of his own postulates.

Firstly, Chomsky quotes Descartes' arguments regarding language as the essential difference between man and animal, or between man and any mechanistic creature such as an automaton. The concern is to demonstrate the uniqueness of man, and the assumption that all lower orders can be thought of as mechanistic is left implicit.

For Descartes, the ability to produce a new sentence, appropriate to the situation, is unique to man. It is:

"a species-specific capacity, a unique type of intellectual organisation which cannot be attributed to peripheral organs or related to general intelligence and which manifests itself in what we may refer to as

the 'creative aspect' of ordinary language use - its property being both unbounded in scope and stimulus free" (p.5)

Although these are Chomsky's words, it is difficult to judge to what extent he supports the Cartesian view summarised herein. The question of whether language is unique to man will be addressed later (see Chapter Three), but Chomsky has certainly supported this view vigorously (1980, p.239-241). The secondary argument that language is in its essential characteristics qualitatively different from other communication systems is also strongly defended by Chomsky (p.77, n.8). However, "unbounded in scope" and "stimulus-free" are clearly Chomsky's words and do require comment. This is apparently felt by Chomsky since he expands on their use in a footnote of some length (p.77, n.8).

He first makes the point that the two properties are independent of each other:

"An automaton may have only two responses that are produced randomly. A tape recorder ... has an unbounded output that is not stimulus-free in the intended sense. Animal behaviour is typically regarded by the Cartesians as unbounded, but not stimulus-free, and hence not 'creative' in the sense of human speech" (p.77).

Chomsky then suggests that animal communication systems are both bounded and stimulus-dependent, emphasizing especially its limitations in having a fixed signal for a given situation. This can be manifested either through a fixed range of signals directly associated with a range of external conditions or internal states, or through a fixed range of 'linguistic dimensions', each one of which is directly linked to a non-linguistic dimension. This distinction is not entirely clear,

Chomsky returns to the Cartesian argument and suggests that given the creative aspect of language use, and the impossibility of a mechanistic explanation for it, Descartes concluded that an entirely new substance had to exist, distinct from the body, which could incorporate this creative principle. This substance Descartes called mind, and its essence is thought. It is mind which accounts for human reason and the great variety in thoughts and behaviour of which each human is capable. Therefore, such display of thoughts, through language, and behaviour, was sufficient proof of other minds.

Cordemoy is discussed by Chomsky as the philosopher who made more explicit the theory of language inherent in Cartesian philosophy. Cordemoy, firstly, confined the

evidence for the existence of other minds to innovative speech since the physical evidence for language can be produced mechanically. It is novel utterances in novel situations yielding coherent discourse which constitutes evidence that the other body has a mind.

Chomsky refers to at least three of Cordemoy's experiments for determining whether the other is capable of producing novel utterances.

"Moreover, I see, I can agree with some [i.e. other Bodies] that what commonly signifies one thing, shall signifie another, and that this succeeds so, as that there are none but those, with whom I have agreed about it, that appear to me to understand what I think " (p.8); <sup>1</sup>

and:

"But yet, when I shall see, that those Bodies shall make signes, that shall have no respect at all to the state they are in, nor to their conservation: when I shall see, that those signes shall agree with those which I shall have made to express my *thoughts*: When I shall see, that they shall give me *Ideas*, I had not before, and which shall

<sup>1</sup> Chomsky quotes the original French. The translation given here is from *A Philosophical Discourse Concerning Speech* (1668) by G. De Cordemoy, Scholars Facsimiles, Delmar, New York, 1972.

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relate to the thing I had in mind: Lastly, when I shall see a great sequel between their signes and mine, I shall not be reasonable, if I believe not, that they are such, as I am " (p.8-9).

For Cordemoy, it seemed obvious that such capacity for innovation was confined to man alone and that, therefore, language proved the uniqueness of man.

Chomsky briefly refers to the comments of La Mettrie. Unfortunately, after describing La Mettrie's explanation of language as a more complex form of the simpler communication systems available to animals, Chomsky does not specifically counter the arguments they contain. For example, La Mettrie suggested that if motion is considered a property of matter, then it is no more difficult to consider thought a property of matter. If other abstract properties such as gravity and electricity are attributed to matter, then why not the abstract property of thought. Chomsky's only comment is an obscure footnote (n.18) stating that La Mettrie's method of explanation may be correct, but that it does not tackle the evidence offered by the creative aspect of language use.

Chomsky refines his charge against La Mettrie (and incidentally much of modern psycholinguistic work which focuses on the communicational or functional aspect of language) by suggesting that the creative aspect of language

use indicates that language is free from control by external stimuli or internal states. Therefore, it is able to serve as the means for thought and self-expression, rather than merely as a communicative device. Chomsky is to return insistently to this argument; for him language is quintessentially an expressive system that externalises in a creative way abstract mental states. It is only incidentally a method for communicating with others, and it is trivial to study this functional aspect of language.

In quick succession, Chomsky then criticises Ryle for failing to realise the implications of "intelligent behaviour", Bloomfield for failing to come to grasp with the infinity principle, as well as Hockett, Paul, Saussure and Jespersen for arguing that the infinity principle can be accounted for by "analogy" or a similar principle. Chomsky denies that generalisation or analogy can account for what is produced in ordinary language use or for what a language user is capable of producing:

"To attribute the creative aspect of language use to 'analogy' or grammatical patterns is to use these terms in a completely metaphorical way, with no clear sense and with no relation to the technical usage of linguistic theory " (p.12).

Before moving on to consider later developments in the philosophical theories of language, Chomsky makes a brief reference to the notion of creativity itself (n.30):

"One would not refer to an act as 'creative' simply on the basis of its novelty and independence of identifiable drives or stimuli. Hence, the term 'creative aspect of language use' is not entirely appropriate, without qualification, as a designation for the property of ordinary language that concerned Descartes and Corderoy " (p.84).

This appears to suggest that Chomsky is again confining himself to rule-governed creativity. This is corroborated by his reference to 'ordinary language' which may be presumed to be opposed to unusual uses of languages such as the narrative or the poetic use of language; these are probably more familiarly thought of as language which involves creativity. At any rate, it seems quite clear that Chomsky generally reserves his stock phrase "the creative aspect of language use" for the property of grammar previously described as the infinity principle.

Chomsky traces the development of the Cartesian tradition of philosophical grammar through to the German Romantic tradition as exemplified by Herder and A.W. Schlegel.

Herder clarified the central Cartesian argument concerning the uniqueness of man to a dual principle: man possesses creative language and man is capable of diversity of behaviour. Like Descartes, Herder attributes these two capacities to man's central capacity for reason. Unlike Descartes, Herder attributes reason not to a faculty of the mind, but to the "freedom of stimulus control" (p.15). Chomsky suggests that this is quite similar to James Harris' notion of reason as freedom from instinct.

Schlegel developed this Romantic concept of man into an explicit aesthetic theory. For him, language is more than a response to external stimuli; it has a capacity for abstraction and imagination which indicates its freedom from external or internal control. Chomsky states:

"From this conception of language, it is only a short step to the association of the creative aspect of language use with true artistic creativity." (p.17).

In general, language has a poetical quality. even in its ordinary uses, because it is independent from external stimuli and from practical ends. More specifically, Schlegel accords the expressive capacity of language (that is, its poetic capacity) a unique status amongst all forms of personal expression. Language used in its highest expressive form (that is, poetry) is unique because it is concerned only with



ideas and it precedes all other forms of creative expression because the creative mental act precedes any work of art :

"Thus the creative use of language which, under certain conditions, of form and organisation constitutes poetry, accompanies and underlies any act of the creative imagination no matter what the medium in which it is realized. In this way, poetry achieves its unique status among the arts, and artistic creativity is related to the creative aspect of language use." (p.18).

The full potential of the Cartesian tradition of philosophical grammar was realised in the work of von Humboldt. Humboldt developed the notion that language had an underlying "form" which generated the actual utterances made by speakers. It is this generative principle which accounts for "the unbounded set of individual 'creative' acts that constitute normal language use" (p.22), and:

"Humboldt's insight that language is far more than 'patterned' organisation of elements of various types and that any adequate description of it must refer these elements to the finite system of generative principles which determine the individual linguistic elements and their inter-relations and which underlie the infinite variety of linguistic acts that can be meaningfully performed." (p.22).

The specific argument concerning the "form" of language, and the general one concerning "mechanical form" and "organic form", were of great metaphysical interest in the eighteenth and nineteenth centuries. It can be traced in a variety of strains, but all originate from the debate concerning the nature of man. From this departure point it is possible to see many avenues of thought, but to mention two of them will suffice to illustrate the ubiquitous nature of the debate.

Firstly, a perspective on human nature has political consequences, in that man's relation to other men and to the State can be compared according to the particular perspective selected. The tradition of concluding that a fundamental conflict is inherent in this relationship can be seen as far back as political theory will allow; but one tradition follows the Cartesian theory of mind to von Humboldt and on to Marx, Sartre and Chomsky through his political writings. A conception of human nature is fundamental to the anarcho-libertarianist views which these thinkers hold in common.

A second example is based on a similar conception of human nature but takes the path of literary theory. It may be seen to go from the Cartesian theory of mind to the Romantic philosophers as exemplified by Schlegel, Herder and von Humboldt; it injected itself into the practice

of literature through such writers as Goethe and Coleridge. What is shared is a conception of man as an expressive creature whose essential nature demands to be externalised or realised through creative acts. Chomsky is satisfied to draw all these contributions under the wings of Cartesian philosophy.

Chomsky analyses the specific contributions which von Humboldt makes to a generative theory of language as it concerns its creative capacity. For instance, he characterises a lexicon as not just a word-list, but rather a set of generative principles that allows for change and renewal to occur. Extending the possibilities for innovation inherent in such a dynamic conception of language, von Humboldt describes language as possessing a "character". Chomsky interprets this as follows:

"the character of a language is determined by the manner in which it is used, in particular, in poetry and philosophy" (p.27);

and:

"Thus a great writer or thinker can modify the character of the language and enrich its means of expression without affecting its grammatical structure.

The character of a language is closely related to other elements of the national character and is a highly individual creation. For von Humboldt, as for his Cartesian and romantic precursors, the normal use of language typically involves creative mental acts; but it is the character of a language rather than its form that reflects true "creativity" in a higher sense - in the sense that it implies value as well as novelty." (p.27).

This appears to signal a return to the earlier notion of "rule-changing creativity" but it is unclear whether Chomsky echoes the reference made to modifying the character of a language without affecting its grammatical structure. His criticism of von Humboldt for being unclear suggests that he does not necessarily accept the particular description of "rule-changing creativity" which von Humboldt attempts through the use of the notion of "character":

"His work is also marred by unclarity regarding several fundamental questions, in particular, regarding the distinction between the rule-governed creativity which constitutes the normal use of language and which does not modify the form of the language at all and the kind of innovation that leads to a modification in the grammatical structure of the language." (p.27-28).

From this point on, Chomsky returns to his stock use of language creativity as pertaining only to rule-governed creativity. It is intimately related to the remainder of the discussion in *Cartesian Linguistics* which considers the contribution of philosophical grammar to the concepts of deep and surface structure. Failure to consider the creative aspect of language use is levelled against the empiricists again and again, and yet it receives no amplification in what is admittedly a historical treatise.

Chomsky's final comment to the topic at hand in *Cartesian Linguistics* is most instructive. He cites many of the previously mentioned thinkers as having to resort to inspiration from disembodied spirits in order to explain true creative thought. Chomsky concludes in a note (n.61):

"(It) leaves quite open the question of how creative thought is possible, and the discussion of this matter was no more satisfactory than any account that can be given today - that is, it is left as a complete mystery " (p.95).

In *Problems of Knowledge and Freedom* (1972), Chomsky is specifically concerned with the epistemological problem of the acquisition of knowledge. He provides an account which draws heavily upon his work in linguistics. However, in the course of defining his account of knowledge as the acquisition of rules, Chomsky acknowledges the limitation of this account:

"The rules in question are not laws of nature nor, of course, are they legislated or laid down by any authority. They are, if our theorising is correct, rules that are constructed by the mind in the course of acquisition of knowledge. They can be violated and, in fact, departure from the rules can often be an effective literary device " (p.33).

This is followed by a discussion of the literary device of deviation from a strict grammatical rule. Chomsky quotes William Empson's "degree of logical or grammatical disorder" as a description of this literary device:

"Deviation from strict grammatical rule is one device to force the reader to 'invent a variety of reasons and order them in his own mind' in seeking to determine the meaning of what is said - 'the essential fact about the poetical use of language', as Empson suggests, but a feature of normal usage as well, for similar reasons " (pp.33-34).

Clearly, Chomsky is referring here to rule-changing creativity; he adds the comment that not only is this undertaken for literary reasons through poetical usage, but also that this phenomenon occurs normally in the ordinary use of language. Chomsky does not continue with this exploration

of such usage as it lies outside his immediate concern in *Problems*. However, many questions are raised by his statement that "We can often exploit the expressive resources of language most fully by departing from its principles " (p.33).

This suggests that Chomsky is required to move beyond the idealised model of language to include what is an ordinary use of language. If the rules can be broken, and indeed are commonly broken, in order to use a particular language, then this capacity has to be built into the model (or grammar) of that language. The point is that this rule-changing creativity belongs to the grammar and is not the result of factors relating to performance. The grammar, therefore, has to accommodate both rule-governed activity and rule-changing activity wherein the latter stands in a creative relationship to the former; linguistic creativity is a device for language change.

Chomsky concludes his essay on the acquisition of knowledge by examining the restraints which a system of rule acquisition imposes upon man. He argues that it enhances the creative capacities of mind by giving the mind direction, quoting both Coleridge and Russell in support of this view. Thus, Chomsky returns to his basic position of seeing all creativity taking place within certain guidelines,

in this particular case, "the principles of mind which provide the scope as well as the limits of human creativity." (p.45).

In *Topics of the Theory of Generative Grammar* (1966) Chomsky again refers to his fundamental notion of the creativity of language, again in slightly different words, but to the same end of criticising those models of language which are incapable of producing an infinity of sentences.

Specifically, Chomsky takes this opportunity to attack the notion of "grammatical habit" as used by Jespersen. He suggests that even as a metaphor, it is a poor description and if it is intended as anything more concrete than a metaphor, it is a description which loses all content. Chomsky confines the description of 'habit' or 'familiarity' to those cliches or formulaic phrases which are totally fixed expressions.

Chomsky tackles the topic of the creativity of language in a substantial way in *Language and Mind* (Revised version, 1972). His reference to the topic in the new preface is interesting:

"[...] a number of professional linguists have repeatedly confused what I refer to here as 'the creative aspect of language use' with the recursive property of generative grammars, a very different matter." (p.viii).



Perhaps these professional linguists could be forgiven their confusion in the light of Chomsky's earlier description in *Aspects*:

"Although it was well understood that linguistic processes are in some sense 'creative', the technical devices for expressing a system of recursive processes were simply not available until much more recently "  
(p.8).

However, it must be assumed that the statement in *Language and Mind* is the explicit position, and therefore that the recursive properties of generative grammar are only part (if that) of the creativity inherent in the grammar. If rule-governed creativity is considered in the light of this statement then, unfortunately, it removes the one concrete example of how the grammar is creative. Chomsky has never been very explicit on this topic, but his one specified creative device (as stated in *Aspects*) is now downgraded.

A new formulation of creativity is provided in *Language and Mind* against a historical perspective and perhaps not necessarily reflecting Chomsky's own position:

"This new principle [of mind] has a 'creative aspect' which is evidenced most clearly in what we may refer to as 'the creative aspect of language use', the

distinctively human ability to express new thoughts and to understand entirely new expressions of thought within the framework of an 'instituted language', a language that is a cultural product subject to laws and principles partially unique to it and partially reflections of general properties of mind " (p.6).

This description is more sophisticated and subtle, yet contains some vague references. Firstly, it appears clearly to state that the non-material principle called mind, possesses an 'aspect' or property described as 'creative'. Secondly, this property of mind is realised (in one way) through the creative use of language. Thirdly, the creative use of language is described as the ability to 'express new thoughts' and to understand those of other people. It is unclear whether the description literally intends to refer to 'thoughts' or whether the phrase 'express new thoughts' refers to new sentences, as Chomsky has hitherto intended. This question must be left open at this stage.

Chomsky then makes another historical foray in search of his philosophical forebears. The three levels of intelligence postulated by the sixteenth century physician, Juan Huarte, are summarised by Chomsky. The second level pertains to human intelligence:

"Thus, normal human intelligence is capable of acquiring knowledge through its own internal resources, perhaps making use of the data of sense, but going on to construct a cognitive system in terms of concepts and principles that are developed on independent grounds; and it is capable of generating new thoughts and of finding appropriate and novel ways of expressing them, in ways that entirely transcend any training or experience " (p.9).

The emphasis here suggests that there is a dual creativity at work. Firstly, the creative process of mind itself in generating new thoughts; secondly, the creative process of expressing these thoughts through language. The essential matter of the link between the two is left vague but then the whole treatise attempts to tackle this problem and to expect a single sentence adequately to describe the link may be asking too much.

Huarte's third level exists to account for "true creativity, an exercise of the creative imagination in ways that go beyond normal intelligence " (p.9). This level is intended to explain the relatively rare examples where the creative mind produces something truly original. It is the creativity of the artist.

Chomsky moves on to the later period of Cartesian thought and provides a summary of the philosophical proofs for the existence of other minds and the uniqueness of mind to man, based on the creative aspect of language (p.11). This is followed by a clarification of what Chomsky believes the Cartesians to be saying about language. Essentially, it turns on three principles, parts of which Chomsky referred to in the earlier *Cartesian Linguistics*, but which are now stated with greater force and clarity.

The first principle is stated thus:

"The normal use of language is innovative, in the sense that much of what we say in the course of normal language use is entirely new." (p.12).

This is essentially the argument of unboundedness of language, or the infinity principle.

The second principle is as follows:

"But the normal use of language is not only innovative and potentially infinite in scope, but also free from the control of detectable stimuli, either external or internal " (p.12).

This is essentially the argument of freedom from stimulus control,

The third argument is as follows:

"... its coherence and its 'appropriateness to the situation' - which, of course, is an entirely different matter from control by external stimuli. Just what 'appropriateness' and 'coherence' may consist in we cannot say in any clear or definite way, but there is no doubt that these are meaningful concepts. We can distinguish normal use of language from the ravings of a maniac or the output of a computer with a random element " (p.12).

Chomsky obviously recognises the weakness of the third Cartesian argument, but it is essential since the earlier two arguments are inconclusive proof against a mechanical explanation of language. That is, the debate returns to the uniqueness of man and for that the third argument is essential. However, to leave it as a mystery is unsatisfactory and Chomsky's appeal to common sense is only partly convincing. Some maniacs speak perfectly normally and computers can "speak" perfectly coherently as well as appropriately to their situation even if this situation is far less complex than man's ordinary situations.

Chomsky is by no means dogmatic about the arguments, as he makes clear in the following:

"Honesty forces us to admit that we are as far today as Descartes was three centuries ago from understanding just what enables a human to speak in a way that is innovative, free from stimulus control, and also appropriate and coherent ." (pp.12-13).

Chomsky carries this position forward into the present:

"Surely the classical questions of language and mind receive no final solution, or even the hint of a final solution, from the work that is being actively pursued today... For example, the central problems relating to the creative aspect of language use remain as inaccessible as they have always been " (p.99).

And yet:

"Real progress has been made in the study of the mechanisms of language, the formal principles that make possible the creative aspect of language use " (p.99).

Given that the recursive properties of generative grammar are specifically excluded from "the creative aspect of language use", there is precious little for the commentator to consider as "real progress". Certainly, little is specified

by Chomsky, and what is specified is largely philosophical argument in favour of the notion of creativity of mind. This last statement of Chomsky must be accepted sceptically, if at all; the proof is still awaited.

In a later essay, included in the revised version of *Language and Mind*, Chomsky opens his discussion with a summary of the three properties of human language: innovative, stimulus-free, and coherent/appropriate. Again Chomsky points out the difficulty in the task of explaining the mechanisms of mind, thought, and language. He appears to be becoming more sceptical than ever of producing the details of these mechanisms:

"We do not understand, and for all we know, we may never come to understand what makes it possible for a normal human intelligence to use language as an instrument for the free expression of thought and feeling; or, for that matter, what qualities of mind are involved in the creative acts of intelligence that are characteristic, not unique and exceptional, in a truly human existence " (p.10).

In *For Reasons of State* (1973), a collection of political essays, Chomsky includes an essay on "Language and Freedom" which concentrates on developing the notion of human essence as a bridging principle between his political and linguistic writings. In the course of this, he frequently

refers to the Cartesian arguments for mind, based on the creative aspect of language, as well as to the Humboldtian concept of creativity within bounds. However, no additional explication of the creative aspect of language is made.

In "Knowledge of Language" in *Language, Mind and Knowledge* (1975) (K. Gunderson, ed.), Chomsky returns to his description of creative language as being innovative, stimulus-free and coherent/appropriate, but he adds a new clarification of the relationship of human language to other human or non-human systems of communication:

"it is quite pointless to speculate about the evolution of human language from animal communication systems, as pointless as it would be to speculate about the evolution of language from gesture. . It is an interesting question whether properties of human language are shared by other cognitive systems " (p.303).

This appears to raise the speculation whether the creative aspect of language has an analogy in other human cognitive systems. In Chomsky's view, it is best to keep an open mind on such questions.



Chomsky returns to many of the philosophical, psychological and linguistic questions which interest him in *Reflections on Language* (1976). Generally, he summarises his earlier comments on the topic of the creative aspect of language use, especially referring to the three principles of innovation, stimulus-freedom and coherence/appropriateness. In a footnote (n.11 Ch.1) he emphasizes that these properties of human language cannot "be identified with the recursive property of grammars".

A later comment appears to contradict the earlier suggestion in "Knowledge of Language" that other cognitive systems may be analogous to the language faculty, since the visual system for instance, which Chomsky often refers to, is obviously shared with non-humans:

"It is a reasonable surmise, I think, that there is no structure similar to U.G. in non-human organisms and that the capacity for free, appropriate, and creative use of language as an expression of thought, with the means provided by the language faculty, is also a distinctive feature of the human species, having no significant analogue elsewhere " (p.40).

Admittedly, the earlier comment was speculative, but then so is the later comment. Apparently, this particular question is not only speculative, but uncertain, even in Chomsky's own approach to the matter.

Chomsky makes some further general references to the restraints on creativity inherent in the structure of the mind:

"Creativity is predicated on a system of rules and forms, in part determined by intrinsic human capacities. Without such constraints we have arbitrary and random behaviour, not creative acts " (p.133).

This principle of creativity within bounds has been referred to previously by Chomsky, but never in the precise manner as stated here (see Babitch (1976) for a similar view of Chomsky's notion of creativity). The importance of this matter for Chomsky can be seen from the fact that this quotation is taken from an argument regarding human nature as it pertains to political philosophy.

However, ultimately Chomsky refers the problem of creativity to the areas of enquiry he terms "mysteries" as opposed to "problems":

"What I have called elsewhere 'the creative aspect of language use' remains as much a mystery to us as it was to the Cartesians who discussed it, in part, in the context of the problem of 'other minds'. Some would reject this evaluation of the state of our understanding. I do not propose to argue the point here, but rather to turn to the problems that do seem to me amenable to inquiry " (p.139).

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It is the purpose of this study to determine whether Chomsky's evaluation of this "mystery" as not amenable to inquiry is correct or not.

It is worth noting that an element of the creative aspect of language use which Chomsky discussed in *Cartesian Linguistics* (1966) is treated somewhat differently in *Rules and Representations* (1980). The ability to respond appropriately in a particular context was described as part of the creative aspect of language use in the earlier text. In the later text, Chomsky distinguishes between this aspect of language use and knowledge of language itself:

"We may proceed to distinguish 'grammatical competence' from 'pragmatic competence', restricting the first to the knowledge of form and meaning and the second to knowledge of conditions and manner of appropriate use, in conformity with various purposes." (p.224);

and;

"We might say that pragmatic competence places language in the institutional setting of its use, relating intentions and purposes to the linguistic means at hand." (p.225).

Divorcing the pragmatic aspect of language use from the grammatical aspect makes creativity straddle two separate arenas. The creative aspect of use is of interest but is not necessarily related to the linguistic capacities. In fact, there is no particular reason to assume that man is capable of appropriately using only language. Other semiotic systems may equally well be credited with a pragmatic aspect and, if so, it seems to refer to a general human capacity to act appropriately. There is not even a necessity to confine such a capacity to cognitive aspects of human behaviour.

The question remains what the creative aspect of grammatical competence is. It is more than mere syntactic creativity since that is a mechanical property of the syntactic rules-and-elements system. Within the Chomskian approach, this question is only hinted at.

In summary, and ignoring changes through time, Chomsky's explicit position on creativity in language is as follows:

"Language possesses a capacity for producing novel sentences. This necessitates that the model of language has to account for the capacity to produce an infinite number of novel sentences. This creative capacity of language implies that man is uniquely different from other creatures since other

communication systems are not creative in this sense. This creative capacity is realised through rule-governed creativity and rule-changing creativity.

"The creative aspect of language is directly related to the creative aspect of thought. Language is a medium for creatively expressing new thoughts. Since this mental-linguistic capacity is found only in man, it is proof of the existence of mind and of other minds. The properties of this capacity are threefold: it is unbounded (innovative, infinite), stimulus-free, and coherent and appropriate to the situation. These properties are not possessed, especially not the last, by any other communication system. It also implies that language is not firstly a functional system, but rather a creative, self-expressive system.

"Creativity in language cannot be explained by analogy or by generalisation, and although it is a part of the normal use of language, it is also linked to the artistic use of language, for instance, through the use of rule-changing creativity as a literary device. Rule-changing creativity is, therefore, as much part of the grammar as rule-governed creativity. The rules of grammar, as well as the rules of mind which are derived from experience through the acquisition of knowledge, are the constraints which give direction to human creativity."

Chomsky thus provides an array of arguments in a clutch of disciplines, all based on his notion of the creativity of language. In philosophy, the notion leads to a proof for the existence of mind and of other minds, and some suggestions concerning the link between thought and language, as well as the epistemological questions implied by such a link. In psychology, the notion proves the basis for Chomsky's criticism of theories of performance which are based on the functional aspect of language; such studies are trivial when compared to the essence of language which is self-expression. As well, he puts forward the view that the mental structures which accommodate language are unique to language although they may have derived from other cognitive structures. He specifies three properties of language (unbounded, stimulus-free and coherence/appropriateness) which must be accounted for. In political theory, Chomsky uses the notion to describe a theory of human nature from which certain political conclusions may be drawn. In literary theory, the notion provides a model of language use based on self-expression, as well as describing some devices (based on rule-changing creativity) which may be used in the production of "literary" language.

However, the central consideration lies with theoretical linguistics. Here, Chomsky is concerned to establish a grammar which can account for the rules of language as well as for the fact that these rules can be

broken without producing ungrammatical sentences (in the sense of not belonging to the corpus of a language).

The implications are that the model must specify the means by which new sentences in accordance with the rules of the model are generated, as well as the means by which sentences not in accordance with the rules of the model are generated. The model must be able to distinguish between rule-breaking (i.e. non-permissible or grammatical sentences which by breaking a rule add a new rule to the model). It thus provides a vehicle for language change.

### 3. RULE-GOVERNED CREATIVITY.

#### 1. The Infinity of Language and the Notion of Creativity.

To build a concept of creativity into a description of language engenders a range of problems which have to be solved. Chomsky is more explicit about rule-governed creativity than he is about rule-changing creativity. Chomsky's notion of rule-governed creativity may amount to nothing more than hyperbole and, in fact, there is some evidence to suggest it is inaccurate.

Rule-governed creativity is based on the notion that there is an infinite or indefinite number of sentences in any language. Chomsky has repeated this claim in all his major texts and relies on its strength as a "truism" (Chomsky, 1965, p.198). However, the notion has been severely criticised, especially by Bjurlof and Jamieson (1979), Moulton (1978), and Bouveresse (Parret, 1974).

Four main arguments have been brought to bear against Chomsky's "truism". Firstly, it is argued that although recursive devices, such as embedded sentences, allow the generation of long sentences, human memory and understanding effectively limit the length of such sentences. "The House



that Jack Built" does not go on indefinitely. This argument relates to performance factors and therefore would be dismissed by Chomsky as of no consequence:

"Linguistic theory is concerned primarily with an ideal speaker/listener, in a completely homogenous speech-community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distraction, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance " (Chomsky, 1965, p.3).

It is, of course, possible to dispute such an approach, but that would be an argument based on the goals of linguistic theory. For the moment, it must be concluded that if the grammar models the competence of a speaker, then performance variables are irrelevant. However, this does suggest that Chomsky did not intend to include the infinite productivity of the grammar as a part of the creative aspect of language use since that formulation clearly implies a performance aspect. In other words, it suggests that infinite productivity is not creativity and vice versa.

A second approach to the notion of an infinity of sentences derives from the exposition of Moulton (1987) of the

immense productivity of language. Moulton assumes that language is a communication system, comparable to other communication systems yet vastly more complex and, therefore, more productive. He makes a serious attempt to calculate the number of possible sentences and succeeds in demonstrating that there are limitations to the productivity of language.

One such limitation touches on the meaning of "sentence". Moulton suggests that whatever else a sentence must have in order to be a sentence, it must have a terminal intonation. This is a fact of the grammar of sentences:

"The first claim (that recursive devices permit a sentence to be infinitely long) is grammatically false. A sentence must come to an end somewhere (with a terminal intonation), for otherwise it is not a sentence; hence, no such sentence can be infinitely long " (Moulton, 1978, p.16).

Even if the perspective of Moulton that language is a communication system is disregarded (since Chomsky would not be likely to accept it; see Chomsky, 1965 and 1966), his description of the grammatical requirement of terminal intonation seems valid. A sentence is a complete unit in some sense and without a marker to indicate the termination of the unit (in speech, with intonation; in writing, with a full stop) it is incomplete.

However, this argument, as Moulton suggests, only limits sentence length and does not limit the number of sentences in a language since the two basic recursive devices (co-ordination and sub-ordination) theoretically allow an infinite number of sentences. Moulton adds that for practical purposes, actual performance will limit the number of sentences in a language to a number less than infinity, but how this happens is not yet known.

Chomsky, by constructing a formal grammar divorced from all performance variables, is therefore apparently correct in claiming an infinite generating capacity for his grammar. It is a mathematical capacity and questions may be raised as to its relevance to a natural language and, indeed, the justification for hypothesizing a competence-performance distinction. This is a debate which has not yet been settled (Hockett, 1968, and for a recent summary, Slobin, 1979).

Bjurlof and Jamieson (1979) put forward a third argument against the notion that language consists of an infinity of sentences. They introduce the logical concept of the "fuzzy set" to make the distinction between an infinite set and an indefinite set. The former, they suggest, requires proof that there is unbounded recursion, not just that there is not a cut-off point for some sentences. A fuzzy set does not require a cut-off point and may, therefore, adequately describe

the set of all sentences of a language, without recourse to infinity.

Bjurlof and Jamieson do not wish to quarrel with the notion that the syntactic component of a Chomskyan grammar is infinite in the sense that it is possible to generate an infinite number of strings of phrase structure markers. But this infinity is limited to indefiniteness when the semantic component is imposed upon the syntactic component. There are limitations upon understanding and, hence, there are limitations upon the number of sentences in a language.

These arguments suggest that rule-governed creativity is a misnomer which really intends to capture the capacity of the grammar to generate an infinite number of syntactic skeletons. The creative aspect lies in the flesh of the sentences - the semantic component.

The fourth argument against the notion that rule-governed creativity is creative in any sense of the word is the trivial nature of such a description. Bouveresse clearly finds it a misleading description to apply to a mechanical function.

Bouveresse (Parret, 1974) raises the point that Chomsky distinguishes between two types of creativity. Bouveresse describes one type as "mathematical or formal

(the recursive property of grammar) " (p.322):

"A relatively simple automaton which has initial elements and recursive formation processes at its disposal may very well be gifted with the first type of "creativity". It is possible that although its productions are potentially infinite, they are totally trivial." (p.322).

It seems that Chomsky's description of the infinity of sentences and, hence, the necessity of a creative aspect of language use is based on a loose use of words. He uses "infinite" and "indefinite" without distinguishing between them (Chomsky, 1965).

There is no need for the concept of infinity of sentences if the purpose is to underscore the creative resources of language. The number of possible sentences, even if finite, is so large that to all intents and purposes individual creative acts can occur constantly without diminishing the potential of the system (Moulton, 1978).

This has generated some discussion [on] the limits of the kind of system Chomsky postulates. Formally, it is infinite or perhaps only indefinite. In either case, the resources of the system are immense. Practically, it is

limited by performance variables, and it may be that the grammar is only a mechanical model which has no separate existence from the practical uses to which language is put; that is, competence may only be an artificial abstraction.

In any case, these arguments are somewhat beside the point since we may grant the vast productiveness of Chomsky's grammar, and even its indefiniteness, without touching the essential point which is whether an appropriate description of this immenseness is that it is creative. I suggested that it is creative only in the sense that the function which generates all natural numbers is creative. Such mechanical productivity amounts to a misuse of the word "creativity". Moulton (1978) makes the point that it is the use to which this capacity is put that is creative. Whether immense, indefinite or infinite, the system has sufficient resources to allow individual acts of creative use to occur constantly without diminishing the potential of the system. The creativity of such acts resides in the appropriateness and coherence of the utterance, and not in the capacity of the system to be able to generate that utterance.

Chomsky's concentration on the syntactic component of language has led him to confuse the syntactic capacity of his grammar with its semantic capacity. Where the syntactic component may generate an infinite series of strings through such recursive devices as co-ordination and subordination, the

semantic component places limitations upon the length and complexity of such strings. Rule-governed creativity is thereby confined to the syntactic component, and if it must be described as creativity, it ought to be "syntactic creativity".

## 2. Descriptions of Creativity.

Although Chomsky is the theorist largely responsible for the introduction of creativity into linguistic theory, other theorists have made comment on this notion.

McCawley (Parret, 1974) supports the notion of creativity as essentially a truism. He suggests that it was an essential notion in combating the "descriptivist orthodoxy" (p.253) of early theoretical linguistics. He adds that it is now readily accepted and is compatible with many theories of language.

McCawley relates creativity to performance variables:

"What makes language creative is that a language can be used as an all-purpose instrument, to express meanings appropriate to essentially any information that one might want to convey.

A language can accommodate itself to all possible subject matters, to any possible intention of the speaker " (p.253).

This suggests that McCawley is confusing Chomsky's syntactic creativity with flexibility. No one would dispute that language is immensely flexible and adaptable. But that does not make it creative, only extensive. This suggests that McCawley is concerned not with rule-governed creativity, but with the immense resources of language which allow the user to adapt the system to meet his requirements in almost any situation. McCawley is, therefore, concerned with the pragmatic resources of the language and not with its syntactic capacities.

Martinet (Parret, 1974) views the notion of creativity in a way which contrasts directly with McCawley. Martinet sees the creative capacities of the language system, such as the creation of a new word by the recombination of given elements, as "nothing mysterious" (p.230). At the same time, he suggests that it is possible to go beyond "what could be described as their competence" (p.230) and produce "unexpected linguistic behaviours" (p.230) as is the case when people take some liberties with the language and with tradition, (p.230). This view leaves more unexplained than it explains, but it appears that Martinet is allowing



some creative capacities into his description of language. But he confines these in some strict way which would mark any unusual or different utterances as outside the language. Therefore, to some extent, he allows rule-changing creativity (e.g. neologisms).

Lamb (Parret, 1974) embraces the notion of creativity and applies it widely in different ways. After noting rule-governed creativity, Lamb describes idioms as an example of a creative ability. Further, he describes the ability "to create new concepts, new collocations in which you take two ideas that have been separate and discover that they can be put together" (p.217).

This latter type of creativity belongs to a mental capacity which may lie outside the scope of language although ultimately it may be the motivation for the creative aspect of language use. It may relate to metaphor.

Lakoff (Parret, 1974) echoes the views expressed by Martinet. He denies that there is anything creative in the language system and states that recursive devices which produce novel sentences are a mechanical factor rather than a creative capacity of the system. Lakoff clearly limits the notion to rule-governed creativity and tends to ignore any other interpretation of creativity.

Halliday (Parret, 1974) places creativity within his theory of social semiotics. Whatever else creativity is, it is an individual act and therefore it presents a particular difficulty for a theorist of social structure who views language as a medium for the transmission of that structure. Halliday defines creativity as "new interpretations of existing behaviour in existing social contexts, in new semiotic patterns, however realized", and "the creativity of the individual is a function of the social system" (p.117). Thus, creativity is again confined to mental acts, with no great interest in how they are realized in the language.

Only Chafe (Parret, 1974) admits that there is a creative aspect of language use which is part of language but exists by breaking the rules which have been formulated to date. He discusses idioms and defines metaphors as restricted idioms: "Authors can use them for particular purposes and do not really follow a standard usage. That creative aspect of metaphors presents a real problem" (p.19). Chafe attempts to extend the concept of idiom to account for context-bound meaning, such as the meaning of "make" in "make the bed".

This approach is further explored in Chafe (1970) where the concept of idiomaticization is utilised to explain how new semantic units are introduced into the lexicon.

Chafe postulates a distinction between phonetic structure and semantic structure in which symbolisation is the mediating force. Thus the meaning of 'make' is symbolised phonetically as "make". Given this, it is possible for a second meaning, for instance, 'restore to a properly neat condition', to be symbolised phonetically as "make", as in "make the bed". This latter expression is therefore ambiguous. Chafe calls this second meaning an idiom. When it is restricted to a particular context as in "make the bed", then it is a restricted idiom; if it is not confined in this way, it is an unrestricted idiom. In this sense, metaphors are restricted idioms.

Strictly speaking, this terminology is not correct, since Chafe's restricted idioms are not metaphors. Metaphors result from the coupling of two semantically anomalous units of meaning to produce a new meaning. "Make the bed" has a meaning that derives from the phrase as a whole. Etymologically, its origin may lie in the ambiguity of "make", but semantically it exists only as one complete idiomatic expression.

Yet in his discussion, Chafe (1970) touches on the problem of how new meanings are added to the language. He mentions sources such as transference from a different language ("sauerkraut") and deliberate invention ("Kodak").

He then elaborates his theory of idiomaticization.

However, he confines his discussion to how new meanings are symbolised into a phonetic structure, thus having language respond to a need to express a new meaning. But more than that, in that it uses existing language resources to produce a new meaning. If we use "pickled cabbage" or a nonsense word instead of "sauerkraut" and "Kodak", it would not have mattered. If we paraphrase a metaphor, something is usually lost.

Parret (1974) concludes his dialogues with a lengthy discussion with Jacques Bouveresse. Creativity is one subject which is covered, largely in terms of a criticism of Chomsky's usage of the notion of "creativity".

Bouveresse characterises creativity as an aspect of performance. Creativity is the capacity to respond to an indefinitely large variety of situations in an appropriate way; it relates to language use. Competence, as described formally in the grammar of a language, accounts for the possibility of producing and understanding an indefinitely large number of utterances. Creativity is the use of this capacity in appropriate ways. This, in turn, is a response to the potentially infinite number of ideas which a person may have;

"The truly creative faculty of man is located on the level of the production of ideas ." (p.323).

For Bouveresse, the creative capacity at the ideational level is realised by means of the formally infinite resources of the grammar in order that the language user can respond appropriately to indefinitely many situations. Creativity describes the interaction between the production of ideas and the constraints of language. It is attractive to fit Chomsky's rule-changing creativity into this description as the special outcome of such interaction in situations where the resources of languages are not adequate to the task of ideational representation. However, it is clear that Bouveresse dismisses the purely mechanical notions of creativity and confines the use of creativity to a different activity altogether, that is the ideational process.

Moravcsik (1969) also tackles the notion of creativity, in the context of a discussion of the concept of linguistic competence. He identifies two uses of the notion by Chomsky. The first ( creativity') is "the ability to interpret novel utterances". (p.424).

The second ( creativity") is "the property of being free from stimulus control and instrumental constraints". (p.424).

The distinction is drawn in the following way:

"The first 'creativity' is a property of the competent language user and is part of his linguistic competence. The second is a property of the processes underlying linguistic competence " (p.242).

In essence, this is the distinction Chomsky made in *Current Issues in Linguistic Theory* and it is discussed in Chapter Two of the present study.

Moravcsik notes that "creativity" is empirically falsifiable and, since it is not disconfirmed by direct observation, certain conclusions may be drawn from this claim; for instance, that language learning cannot be confined to "mere explicit instruction of the structure and meaning of various utterances" (p.425).

"Creativity" is less empirical and is a complex property of linguistic competence. It relates to Chomsky's claim that language is quintessentially a self-expressive capacity as opposed to a functional or communicative capacity in man, and it is free from external stimuli because it is not necessarily determined by changes in the external or internal environment.

Moravcsik correctly concludes that "creativity" is largely a negative concept. It says what language is not.

He attempts to counter this by formulating a positive version. To do this, he couples the concept with the claim that:

"the use of language is determined only by the process of thinking, and that the latter is autonomous.... Thus the full hypothesis states that thinking is free from stimulus, need, desire, drive and instrumental control and that the use of language is correlated with thinking only " (p.427).

"Creativity" is therefore an aspect of the brain-mind-language puzzle and Moravcsik, perhaps correctly, has widened the scope of the inquiry as well as complicated it. In his words:

"These empirical claims admit only of indirect verification or disconfirmation." (p.427).

Moravcsik sees the formulation he has given to the notion or notions of creativity as assisting linguistic inquiry in two ways. Firstly, the creativity claims will limit the possible answers to the question of how language is acquired. If language is free from external control, then concepts such as conditioning and inner drives can have no role to play in any account of language acquisition.

Secondly, if language is a means for self-expression and not a mere communicative device, then functional explanations will not have any bearing on any theory of linguistic competence.

For the purposes of the present study, Moravcsik only reflects, perhaps in a more focussed way, the views of Chomsky. Thus, he contributes little to the notion of creativity since it is perceived in strictly Chomskian terms.

In summary, many theorists have commented upon creativity but its description varies. At least three notions have emerged from the theorists reviewed here. Firstly, syntactic creativity, or Chomsky's rule-governed creativity, which refers to the capacity of formal grammars to generate an infinite series of syntactic strings. Secondly, pragmatic creativity, which refers to the fact that a speaker is able to produce utterances which are appropriate to the situation in which the speaker is placed; it attempts to account for the variety, relevance and cohesiveness of language uttered in a particular situation. Thirdly, semantic creativity, which refers to the capacity of speakers to produce utterances which appear to be entirely novel in their semantic content and typically break a rule of language (especially a syntactic rule); neologisms and metaphors are examples of this kind of creativity.



### 3. "Language and Creativity".

The notion that language is capable of immense productivity (an aspect of competence) and that a user is able to apply this capacity to an indefinitely large number of situations by producing appropriate utterances (an aspect of performance) has led to some interest in whether this duality adds anything to our perspective of man. Chomsky elevates the notion of creativity to the heights of mystery; Den Ouden in *Language and Creativity* (1975) descends to of speculation in his enthusiasm to "apply" Chomskyan linguistics to metaphysics.

Calling his study "An Interdisciplinary Essay in Chomskyan Humanism", Den Ouden is chiefly concerned to derive evidence from Chomsky's work to support his argument regarding "man and human nature". (Den Ouden, 1975, p.7). Den Ouden's purpose is to define the distinctive features of man which make him different from other species. He hopes to find evidence in Chomsky's work that it is creativity which is the essence of man: "I shall argue that 'human being' is human creativity." (ibid. p.8, n.1). Sampson (1975), for instance, demonstrates that a quite different conclusion can be drawn from Chomsky's linguistic work as to the implications for man's alleged uniqueness as a language-using animal.

It is clear, therefore, that Den Ouden makes no claim to any original observations in linguistics, but that his work is openly derivatory. However, it is of interest since it is one of the few attempts to grapple with creativity in language, even if the perspective is directly metaphysical rather than linguistic.

Den Ouden's approach centres on arguments drawn from several sources which, to some extent, parallel Chomsky's sources: Cartesian metaphysics, nineteenth-century German philosophy of language, and anti-empiricism. The purpose of this review is to consider only those comments which either relate to the notion of creativity in language or which use this notion for some other argument.

From his very first comment, it is clear that Den Ouden intertwines "generative", "creative", "transformational", and "competence". It is difficult, at any one time, to be sure which Den Ouden is referring to or which text he is paraphrasing. For example, from his formation of the implicit knowledge which a user possesses, Chomsky concluded that a grammar must have the capacity to generate an indefinitely large number of sentences. Den Ouden comments:

"The key to language acquisition and use is thus creativity and generation of alternative linguistic constructs " (p.12).

Chomsky is describing an aspect of his grammar which attempts to describe the competence of a user of language. He resorts to recursive devices to build a generative capacity into his grammar. Den Ouden interprets this to relate to performance variables ("language acquisition and use") and sums up Chomsky's meaning by describing it as creative and linking it to the "generation of alternative linguistic constructs".

This argument is worthy of attention because it demonstrates Den Ouden's approach. He glosses over distinctions without making them explicit and uses terms without explanation or definition. He will use "generation of alternative linguistic constructs" repeatedly, but without clarification. If it is intended to mean what it says, then presumably the ability to construct the passive from an active is included as creative. At worst, Den Ouden is badly paraphrasing Chomsky's notion of rule-governed creativity, which is creative in only the most mechanical of sense. Further, he is suggesting that competence equals creativity:

"Creative language use consists of the generation of alternative forms of expression. This is radically different from mere performance which could be produced by mere memorization " (p.12).

If Den Ouden defines creative language use as a user's competence, then we will need to know more of his concept of competence. This would be extremely useful since

it relates in a special way to his concept of performance, and neither concept relates very much to Chomsky's formulation of competence and performance.

After this exposition of Chomskyan theory, Den Ouden turns to Chomsky's philosophical precursors. He summarises the arguments of *Cartesian Linguistics*, which relate to the notion that man has a unique capacity which distinguishes him from machines and animals in that he is able to respond appropriately to indefinitely many situations. Various quotations from Descartes, Cordemoy and the Port-Royal grammarians, derived from *Cartesian Linguistics*, suggest that there is a recurring tendency to attribute to man a capacity of cognitive freedom which is expressed through his language and at the same time the underlying structure of language suggests that all men possess some linguistic structures in common. Den Ouden intends to solve this apparent contradiction in later chapters.

In reviewing the German Romantic philosophers, Den Ouden adds Hamann to the philosophers discussed by Chomsky (1966), Herder, Humboldt and Schlegel. In the process, he is given the opportunity to emphasize an aspect of their thinking which Chomsky de-emphasized (1966, p.30), but which Den Ouden is interested in: linguistic relativity. His concern is to resolve the apparent contradiction between theories of linguistic universals and linguistic relativity.

Den Ouden emphasizes that Chomsky's concern was the observations which these thinkers made regarding creativity, and other primitive versions of Chomskyan concepts such as deep structure. Nevertheless, his object is to pursue the notion of linguistic relativity which is strongly represented in the tradition to which Chomsky appeals, in seeking support for his own theory of deep and surface structure, and creativity in language.

In his attempt to unite linguistic relativity with linguistic universals, Den Ouden takes somewhat unusual approach. It is worth noting that his usage is only approximate, in that he provides multiple paraphrases rather than definitions:

"It was noted previously that Chomsky recognized and describes Herder, Schlegel, and Humboldt as thinkers who anticipate his own theory of creative language use. It was also noted that Chomsky pays very little attention to the facets of their work that point strongly in the direction of linguistic relativity. The question that must be resolved is: Can Chomsky's emphasis on grammatical universality be reconciled with the view that language is also linguistically relative. On the surface, the two views seem irreconcilable, that is, either language reflects linguistic relativity or it reflects universal human characteristics. For Herder and Humboldt, it

reflects both. Language, for Herder and Humboldt, as for Chomsky, is a species-specific capacity that is indicative of the unique intellectual capacities of man. This unique capacity is what Chomsky argues is reflected in the creative aspect of language use. Human nature, thus, in the Chomskyan perspective, is very closely related to human activity. Herder and Humboldt, as was previously indicated, argued a similar point and contend that language is indicative of unique intellectual capacities that are specific to man. Herder and Humboldt maintained, however, that language as a species-specific capacity is also linguistically relative.

"Their resolution of the tension between universal human characteristics and linguistics relativity is basically the following: Language in its creative and innovative function is unique to and with man. As such, it reflects a universal characteristic, that is, it reflects the unique human ability to think and communicate creatively.. Language, in addition to reflecting this unique human ability, also reflects the world-view or mental patterns of a particular linguistic group. Thus, man is capable of being creative within the patterns and structures of his own language. The patterns, structures, and grammar

of his language are historically and culturally relative, but the way he uses and creatively transforms his language will be parallel to the variation that man is able to bring about in any language. Thus, the ability to generate alternative phrases and to transform the order of words and phrases is not unique and particular to any one language. It is a universal ability of man and a universal characteristic of human language. This makes Chomsky's emphasis upon universal grammar compatible with theories of linguistic universality. Particular languages may be linguistically relative in the world views they reflect, but how they are generated and transformed in creative language use is analogous and parallel to the creativity that is reflected in any human language " (pp.42-43).

The triteness of Den Ouden's argument is breathtaking. Languages differ in their surface structures ("patterns and structures of language") but share a capacity to generate alternative phrases and transform word orders. This latter capacity is labelled "creativity in language".

It should be obvious that Den Ouden has missed the point in both the arguments for linguistic relativity and the arguments for universals in language.

Linguistic relativity, in any useful sense of the phrase, relates to semantic differences as expressed by the lexicon of a language (Lyons, 1968, p.432). It is even conceivable that it suggests no more than Chomsky does in putting forward the notion of "substantive universals" whereby a language selects from a limited number of possible phonological, syntactic and semantic features.

Linguistic universals are the formal universals which Chomsky suggested are shared by all languages, such as "structure-dependence" (Chomsky, 1972, p.61). However, although they relate to the generation of alternative expressions such as active to passive, declarative to interrogative, etc., and thus account for paraphrase, this is not what Chomsky means by creativity or what Den Ouden has meant by it up until this point. When a language user is required to produce an utterance appropriate to a particular context, he may utter an active or a passive but in either case, the creativity lies in the appropriateness of the meaning. In other words, creativity is a semantic matter, and the ability to produce alternative syntactic forms is incidental.

Den Ouden next turns to Chomsky's own work in order to detail the linguistic evidence for his view of human nature. He states that Chomsky "describes his own theories as generative and transformational grammar. The word 'generative' symbolises the human ability to select or generate novel expressions" (p.44)



The imprecision of this description makes it difficult to decide whether Den Ouden is correctly representing Chomsky's views. Certainly, Chomsky has emphasized that by generative, he means the production of syntactic sequences. It is a mathematical formulation of the productive capacity of this device (Chomsky, 1957, 1965).

Such a description is difficult to relate to Den Ouden's use of "symbolize" or to his concentration on "novel expressions". He explicates "generative" by using "generate" in the explanation. It is, therefore, distinctly possible that Den Ouden does not understand what he is talking about.

His discussion of Chomsky's theories focuses largely on the work of Katz (1971). Den Ouden is most interested in the characterisation of discourse as the exchange of novel utterances, and that despite the novel sequences, meaning appears to be instant for both speakers. Both are able to produce and comprehend constructions which the other has not heard before.

Here Den Ouden has touched one of the springs of the generative model of grammar. But that is not to say that the argument is settled, for despite the lack of reference to them by Den Ouden, alternative explanations of

the fecundity of language do exist. Hockett's (1968) "analogy", and some psycholinguistic evidence (Slobin, 1979) suggest that certain problem-solving strategies may account for the capacity to understand novel utterances.

The point is that Den Ouden accepts uncritically the claims of Chomskian theory. Merely accepting the fact that speakers produce and comprehend novel utterances is not enough. To relegate it to a mystery (Chomsky, 1976) is an evasion of responsibility. Den Ouden, when he gets Chomskian theory right, shares in that evasion.

Further, "novel utterances" is a description which requires explanation and definition. The novelty of the utterance may lie in the many facets of language - syntactic, semantic, social, or a combination. It cannot be assumed that the description is clear in its own right; devoid of context, it can be made into many things. But the context which Den Ouden supplies suggests that he is only concerned with its syntactic novelty, or more precisely, surface structure variations.

The universal structures of language, Den Ouden says Chomsky says, is the phrase. The phrase is capable of combining with other phrases in many ways and this is true of all languages;

"If all human beings structure their languages in phrases, then there must be a common structuring capacity that produces phrases in all languages." (p.55).

If we accept the psychological and linguistic reality of the phrase, then we do not necessarily have to accept it as a language universal; in some way, it may be a perceptual or cognitive universal. In any case, there are alternative plausible explanations which Den Ouden ignores. His purpose is to point to what humanity has in common, and a phrase-structure universal suits his requirements because it allows a description of creativity which has been hinted at before but never entirely made explicit until this point:

"Structure is present in language and languages and insofar as they can be used to communicate and to produce intelligibility and understanding, languages assume the form of phrases. Yet, within the necessary structuring of phrases, there is freedom and variability. The sequence of a group of phrases can be changed or rearranged. Words and phrases can be added and deleted. Phrases can be conjoined and embedded. Very simply, alternative meaning and order can be generated through transformation alternatives.

"Through the vast, if not infinite, possibilities for linguistic conjunction, rearrangement and embedding, language exhibits the boundless horizons of human creativity." (p.56).

Very simply, Den Ouden's conception of creativity is rule-governed creativity which is the formal capacity of a grammar to generate alternative surface structures from a common deep structure. As such, it is susceptible the same attacks which have been brought against Chomsky. And whatever the accuracy of such a description of a grammar, it is misleading to name it "creativity", since it is a precise and specified syntactic capacity of the generating device; it does not in any way extend or negate the limits of the device and although it is highly productive, it is "creative" in only the most trivial and mechanical of senses.

It is difficult to pin Den Ouden down to a particular conception with any degree of accuracy. Despite his explicit conception of creativity as the formal devices of grammar which produce superficially distinct sentences, he continues to hint at a semantic content to his description. For instance:

"If it is possible for the human mind to generate and transform ideas and linguistic expressions, then both in grammar and in epistemology this must be taken into account" (p.56);

and:

"Further evidence for the validity of generative and transformational grammar can be found in the necessary movement from surface description to deep structure or semantic analysis " (p.57).

However, it seems likely that Den Ouden's continual vagueness and lack of clarity is obfuscating the fact that he is concerned only with syntactic creativity or rule-governed creativity. Suggestions that "the human mind ... generate[s] and transform[s] ideas" (p.56) are once-off statements left dangling without further explanation and are presumably the result of Den Ouden's intuitions regarding the relation between thought and language.

#### 4. Conclusion.

With a few exceptions (Bouveresse and perhaps Lamb and Chafe), discussion of creativity and language has

centred on the rule-governed (or syntactic) creativity first expounded by Chomsky. The motivation for this discussion has been the attempt to account for the obvious flexibility of any language as demonstrated in even the simplest dialogue. However, it has resulted in an emphasis on structural-syntactic aspects rather than semantic contributions.

Rule-governed creativity is largely a misnomer, since this formal type of creativity is a mechanical function of the language system. It is built into the system through recursive devices such as co-ordination and subordination, and emphasizes the point that the system is capable of generating alternative structures or sequences which may be semantically identical. Rule-governed creativity is the capacity to generate a large, perhaps infinite, variety of syntactic sequences. It is creative only in the sense that it may be infinitely productive; it is infinitely productive because it is a mechanical device programmed to be infinitely productive.

Occasionally, other notions of creativity have surfaced, and usually these relate either to the fact that a speaker produces a variety of utterances which are usually appropriate (pragmatic creativity) or to the fact that a speaker can break the rules of grammar and

still be understood, in fact, understood better than he might have been had he not broken these specific rules of grammar (semantic creativity). It may be that these two notions, often only vaguely referred to, may be related and linked.

It is, therefore, relevant to examine whether these notions have been at all developed elsewhere in the literature.

#### 4. THE THEORY OF METAPHOR.

##### 1. Introduction.

The creative capacity of language has been called upon in many investigations of language and language use. One aspect of the creative capacity of language which has received a great deal of attention is the study of metaphor. Metaphor in particular, and figurative language in general, have traditionally been singled out as presenting paradigms of creativity in language, largely because of the application in literary language. Often, metaphor (and figurative language) has been seen as the prerogative of creative writers in a way which has almost made metaphor their hallmark.

Metaphor relates to this present study because it implies a non-conventional use of language, which has traditionally been referred to as creative. Further, it presents a well-explored area of language study which may have a more precise bearing on creativity in language.

Mooij (1976) makes this point in the following way:

"...one of the factors that make metaphors interesting and significant is that they provide a possibility of



extending the area of what can be expressed by means of language. Metaphors may help to cover new situations or to elucidate new aspects of already familiar ones. It would be incorrect to think exclusively of literary metaphors in this connection; in conversation such creative metaphors can be used, too, while many literary metaphors are not pre-eminently creative in the way referred to here " (p.9).

There is much in the ordinary and specialised use of language which is non-literal. One aspect of non-literal language is figurative language, so called because it has as an identifying characteristic the use of figures of speech. Figures of speech are devices which are easy to exemplify but difficult to define. It is the intention here to avoid a detailed discussion of rhetoric and hence discussion of figures of speech will be confined to the particular devices generally referred to as metaphor and simile. The use of 'metaphor' to represent all figurative language or all figures of speech will be avoided.

Metaphor and simile (and other figures) occur in ordinary language as well as in the specialized language used by writers. Traditionally, these figures find their most specialised application in poetry. However, for the purposes of this study, interest will focus on the general

occurrence of figurative language, and no distinction will be drawn between its use in ordinary language and that in poetic language.

It is almost impossible to provide a definition of metaphor or simile which is acceptable to everyone. A range of definitions is considered in the discussion below; let it suffice at this point to state that a metaphor implies a significance beyond the literal meaning of the words of the metaphor. It is precisely because the literal meaning is unlikely (impossible, implausible, etc.) that the reader is alerted to the presence of a metaphor. In some sense, similes are more evident because of the formal markers 'like' or 'as', thereby patently implying a comparison of some sort. Questions as to whether metaphor is a comparison and how it relates to simile will be raised in the discussion below.

It is assumed, for the present, that even if no acceptable definition is available, there is no disagreement that metaphors exist, and that most thoughtful readers can recognise at least some of them with some degree of accuracy. Broadly speaking, there is only disagreement about individual metaphors (and such disagreements may relate to particular definitions being employed), not about whether metaphors exist.

The study of metaphor has been undertaken by literary critics, philosophers, linguists and psycholinguists. These various approaches have all contributed new aspects to the phenomenon, although none can claim to have captured the phenomenon in any precise way. The various treatments differ widely; where a literary critic may consider metaphor as central to his concern, the linguist may dismiss it as an aberration of language or an offence against the rules of language. However, each approach has contributed to the others, so that a psycholinguistic approach may depend on the theoretical notions provided by literary criticism (e.g. the way in which Pollio et al (1977) depends on Richards's (1936) vehicle and tenor).

Recent research into metaphor is largely of two types: consideration of the theory of metaphor, and application of experimental procedures to determine its empirical aspects. These two types of research are clearly mutually dependent. However, both skirt the central issue of what the study of metaphor contributes to the understanding of language, and to the theories of language which have been constructed to date. The fundamental question is what a theory of language must account for in view of the occurrence of figurative language and how the theory may be able to account for it.

## 2. A Model of Metaphor.

One of the most comprehensive treatments of the theory of metaphor is Mooij (1976) *A Study of Metaphor*. Unlike most other studies, this work provides a survey of the major theoretical work on the subject; its aim is to critically assess past and current efforts to provide a theoretical description of metaphor. It has the advantage of a wide reading of relevant subject-matter, and combines the literary, philosophical and linguistic traditions in the field. This point is emphasized since many of the accepted studies on metaphor are remarkably lacking in any perspective on previous and contemporary studies of metaphor.

Mooij (1976) provides a critical analysis of various theoretical approaches to metaphor, and is able to provide a conceptual framework within which most theories can be approximately placed. He grapples with the difficult task of determining what theorists actually mean, for the field is strewn with inexact terminology and imprecise conceptualizations. What follows is a brief summary of Mooij's findings.

A major distinction may be made between theories of metaphor which hold that a metaphor retains its original, literal reference and those which claim otherwise. The first

may be called dualistic theories and the second monistic theories.

(It must be kept in mind that any theory of metaphor is ultimately based on more fundamental conceptions derived from fields such as epistemology and hermeneutics. In fact, a theory of metaphor is directly dependent on a theory of reference, and any distinction between theories of metaphor may relate to differences in the use of the concept 'reference'.)

"On the one hand, some theories hold that words, if used metaphorically, keep their normal referential capacity, thus retaining a reference to elements of their literal extension. Besides, they may carry a second reference because of their special (metaphorical) function. On the other hand, some theories hold that words, if used metaphorically, lose their normal referential capacity, but may get another reference instead " (p.31).

This distinction is predominantly of degree, and a particular theory may be strongly or weakly dualistic or monistic.

Dualist theories are generally of two varieties; comparison theories and interactionist theories. Henle (1958)

is an example of the former, and Campbell (1975) presents a linguistically based version of the comparison theory. Richards (1936) and Black (1962) are examples of the interactionist theory.

Comparison theorists hold that:

"The metaphorical words in a sentence refer not only figuratively to one situation (that is, the literal subject-matter of the sentence), but also literally to another, this second situation serving as an icon of the first. It is only through the literal reference of a metaphorical expression that its figurative reference comes into being. Indeed, Henle is committed to the idea that metaphor consists in an analogy between different things or situations " (p.30).

Interactionist theorists hold:

"(1) that a metaphorical sentence has (at least) two subjects; (2) that the finding of one of these two subjects (the subsidiary subject S2) depends upon picking up the normal referential meaning of the metaphorical word(s); (3) that the other subject (the main subject S1) is conceived in terms of S2 so that the resulting meaning of the sentence involves a certain blending of the two subjects " (p.35).

### Monistic theories of metaphor:

"...explain the meaning of metaphorical expressions on the basis of part of the meaning of these words in literal use. This literal meaning is analyzed as a conglomerate or structure of meaningful elements or meaningful components. In metaphorical use these are only partly considered to be relevant, in such a way that normal referential capacity is eliminated and a reference to the literal extension is no longer present " (p.36).

Monistic theories are generally of three varieties: connotation theories, (M. C. Beardsley (1962) and R. J. Matthews (1971)), substitution theories and the supervenience theory (perhaps D. Bickerton (1960)).

### Connotation theorists hold that:

"...on the basis of new verbal combinations and with a view to the properties of the respective referents, new connotations develop: properties can be made, temporarily or permanently, into meanings " (p.30).

Substitution-theories tend to be the traditional theories of metaphor, found in the early texts on rhetoric:

"The view that a metaphorical word just means what another word, viz. the proper (literal) word which has been replaced by the metaphorical word, would mean in the same context and situation." (p.36).

The supervenience theorists hold that there is no rational explanation of the metaphorical use of an expression. Bickerton's (1969) theory has some similarities with the kind of connotation theory described by Beardsley (1972), in that Bickerton's "assigned attributes" (the features belonging to words which convey a characteristic attribute, e.g. "iron" = "hardness") are very similar to Beardsley's "connotations". However, Bickerton ultimately believes that words do not have fixed and definite meanings (Bickerton p.36), and that the attributes assigned to words are entirely arbitrary (e.g. "iron" rather than "steel" for "hardness"). Metaphors are ultimately left unexplained by such a theory.

Although Mooij considers a range of arguments for and against the various theories, his concern is not to establish one particular theory as "correct". Rather, he is concerned to extract from each theory its explanatory power, and weld the results together into a prolegomenon to a model of metaphor. He openly favours the interactionist view, but equally strongly defends the connotation view against recent attacks. This ecumenical effort produces a



tentative model which incorporates many of the strengths of these two theories. At the same time, Mooij has clarified the conceptual pea-soup which has clogged the theory of metaphor, and provided some indications as to where empirical research should be heading.

His model of metaphor is interesting for another reason. Given that the empirical phenomena upon which theories of metaphors have been constructed remain undefined, the model provides an approach to dealing with imprecise and diffuse phenomena. Mooij does provide a working definition but it is tentative and open-ended, and delimits the extension of metaphor rather than defines it:

"One or more words W used in an utterance (of one or more sentences) can be classed as metaphorical if, and only if:

"(a) the linguistic context and/or the non-linguistic situation (inclusive of speaker, circumstances, audience, etc.) make it clear that the utterance is substantially about a certain subject, A.

"(b) The words W, whose metaphoricalness is under discussion, have a field of literal descriptive meaning, F, determined by semantical conventions (often relative to the context and/or the situation).

- "(c) These words W are used in the utterance in such a way that at least part of their function seems to be a direct description, characterization, indication, etc. of certain aspects of A.
- "(d) Although A and F may be only vaguely circumscribed, it has to be clear that the aspects of A meant in (c) do not show the features F.
- "(e) Nevertheless, the utterance is not to be interpreted as simply false, inappropriate, or nonsensical (which it would be on the basis of a literal reading of W), because it is understandable as a significant contribution to the discourse about A. That is, the metaphorical words do not only seem to give information about A, according to (c), but they actually help to do so. This requires a variant reading of W which, however, does not depend on a shift based on relations of contiguity (between cause and effect, vessel and contents, part and whole, and the like) or on specific factors like exaggeration or reversal of meaning " (p.26).

Mooij adds two qualifications. Firstly, this 'delimitation' of metaphor is not confined to statements;

questions, commands or exclamations are not excluded. Secondly, in order to include negatives (especially of false sentences), he adds the following codicils:

"(d') Or the relevant aspects of A show the features in F in a quite trivial way.

"(e') In case the utterance is trivial, though irreproachable, it is nonetheless not to be regarded as a useless item in communication. It can be given a significant content, e.g. as a useful reminder or a suggestive hint, by a variant reading of W" (p.27).

Mooij's model of metaphor is as follows:

Metaphor may be classified along three dimensions, each of which provides an aspect relevant to how the metaphor works.

The first dimension is reference: "the dimension of the strength of the reference of the metaphorical expression to its literal extension" (p.173).

The second dimension is conception: "the dimension of the re-organization of features of the principal subject because of its metaphorical description or indication" (p.174); and "along this dimension is estimated the degree in which

our conception of the principal subject is reorganized (albeit temporarily or experimentally)" (p.174).

The third dimension is distance: "the dimension of the distance, or the remoteness, felt to exist between the principal subject and the literal extension of the metaphorical word" (p.174).

The three dimensions indicated in R, C and D value for any particular metaphor. From Mooij's examples, Table 1 may be derived. Obviously, the placement of any particular metaphor on each dimension may be highly idiosyncratic and difficult to agree on. However, any schema of metaphors must commence with the metaphors upon which agreement can be reached. If necessary, the schema can be modified in the light of later discussion regarding controversial metaphors.

The model sheds some light on the concepts discussed earlier by Mooij. The monist theories account for metaphors which have a low R value but are not able to accommodate metaphors with high R values. These low R value metaphors ('monist' metaphors) live comfortably with a high or low D value. However, it seems that they require, of necessity, a low C value.

TABLE 1

Some metaphors graded by the Mooij (1976) model

<u>Example</u>	<u>R</u>	<u>C</u>	<u>D</u>
"Man is a wolf"	high	high	high
"The Rhine is a sewer"	high	high	high
"Wrapped in thought"	low	low	high
"The bullets flew about their ears"	low	low	low

If the R value is high, then dualism is needed to account for such metaphors ('dualist' metaphors). Dualist metaphors may have a high C value, in which case the interactionist theory is able to account for this. If they have a low C value, then a comparison theory is sufficient to account for them. The D dimension does not have any effect on whether a dualist metaphor requires an interactionist or a comparison theory.

On the basis of such a three-dimensional model, Mooij is able to ascribe particular types of metaphor to a broad location. For instance, Wheelwright's (1962) diaphor: high R, low C, high D; and Brooks' (1965) paradoxical metaphors: high R, low C, mid D. In addition, interaction metaphors are shown to be the central metaphorical phenomena.

Finally, it is worth noting that these three dimensions relate to different approaches which have been taken to the problem of metaphor. The R dimension relates largely to linguistics and the philosophy of language. The C dimension relates to the comprehension and interpretation of the metaphor, that is, psycholinguistics and the psychology of language. The D dimension relates to the practice and use of metaphors; it presupposes a deliberate manipulation of the distance between the subject and the literal extension of the metaphor; hence, it relates to poetics and the creative use of language.

Mooij also briefly considers the function of metaphors and touches directly on the reason for their inclusion in the present study:

"Why should metaphors be so widespread, so useful, so (practically) indispensable as they have proved to be? The same question arises in connection with the phenomenon of individual users of language applying metaphors extempore in order to express some notion or other without a resultant extension of the standard idiom of the language concerned. This happens in conversation, in propaganda speeches, in scientific expositions for the general public, in philosophical texts and in literature. What is the background of this?" (p.12).

Aspects of the use of metaphor are summarised briefly by Mooij (p.12 ff)

- (1) Metaphor allows language to be extended to cope with novel situations for which there is no existing term. (In classical rhetoric, 'catachresis' resolving 'inopia'.)
- (2) Metaphors work because the denotation and connotation of the literal expression are carried over into the metaphor in some way. (Whether the literal expression continues to hang about depends on which theory is adhered to.)
- (3) Metaphors are an economic device of language and make unnecessary an infinitely large vocabulary, albeit that they run the risk of misinterpretation. Generally, there are cues to assist in noticing and comprehending metaphors.
- (4) Metaphors are like the (conceptual) models of science which assist in exploring new situations. They may be fundamental to our struggle to interpret the world and certainly aid this struggle at various times.

- (5) Metaphors may express new insights into existing situations. As a metaphor interprets and thereby constructs or structures a new situation, so it destroys an existing construction.

Obviously, these broad outlines of the function of metaphor are generalised and impressionistic, but they provide both the inspiration for their study and the goal of explicating such functions.

### 3. The Philosophy of Metaphor.

P. Ricoeur in *The Rule of the Metaphor* (1978a) presents a theory of metaphor which is more complex in conception and less verifiable in its empirical claims than the theory provided by Mooij. Ricoeur's study of metaphor provides an interdisciplinary width and a theoretical depth to which the present study can barely give justice. His aim is to write a phenomenology of metaphor and such a scope is not immediately pertinent to the study of creativity in language. However, in passing, Ricoeur discusses various notions which relate intimately to such a study.

Essentially, Ricoeur agrees in broad terms with the distinction between monistic and dualistic theories of



metaphor. He uses a different terminology and, more importantly, he attempts to ascribe a theoretical foundation to this distinction. For Ricoeur, the distinction lies in the distinction between semiotics and semantics. Semiotics treats the word as the basic unit of meaning, and considers it to be a sign which names a referent in the real world. Semantics treats the sentence (or statement) as the basic unit of meaning and considers it to provide the complete meaning. Metaphor cannot be accounted for by semiotic theory (except for 'dead' metaphors) since that is derived from a theory of meaning based on naming; rather, to be complete and account for live and novel metaphors, a semantics of discourse is required, in which the sentence is the unit of meaning, and meaning is a process of predication:

"Metaphor is an act of predication rather than of denomination. (Ricoeur, 1978b, p.158).

This theoretical conception is the foundation for the distinction between monistic and dualistic theories of metaphor, between theories of substitution and of interaction:

"... the opposition at the level of metaphor, between a substitution theory and an interaction theory, reflects the deeper opposition at the level of basic

linguistic postulates between a semiotic monism (which rules the semantics of the word and of the sentence) and a dualism of semiotics and semantics, where the semantics of the sentence is built on principles distinct from all operations with respect to signs." (1978a, p.103).

Within the framework of his view of the development of the theory of metaphor, Ricoeur reviews many of the theorists who were discussed by Mooij - Richards, Black, Beardsley, Henle, Konrad, etc. However, he adds one theorist, not mentioned by Mooij, who is directly concerned with innovation in language. Ullman (1967) provides a semantic theory which is within the parameters delineated by de Saussure; it is a structural semantics confined to a semantics of the word (lexical semantics).

Ricoeur (1978a) outlines three theses which limit such a semantics:

- (1) lexical semantics inherits all the problems of defining "word", e.g. the phonological demarcation of the word, the meaning of function - words, etc.
- (2) the meaning of a word is both its name and its sense; meaning is "a reciprocal and reversible relationship between the name and the sense"

(Ullmann, p.67). This is rarely a one-to-one relationship (i.e. synonymy, homonymy and polysemy), and every name has an 'associative field' which brings relationships based on contiguity and resemblance to either the name or the sense.

- (3) historical linguistics accounts for changes in meaning by accounting for the causes of the change.

It is the notion of polysemy which is of interest to Ricoeur. Polysemy (or lexical ambiguity) is the essence of descriptive (synchronic) semantics. Its strength is that it allows a lexical system which is economical and flexible, saved from confusion by the contexts of the words. Upon polysemy is built Ullman's theory of change of meaning and, as a consequence, his theory of metaphor and innovation.

New meanings result from creative intentions. Such meanings are arrived at suddenly, without intermediate stages; Ricoeur quotes Ullman as follows:

"metaphor issues wholly formed from an 'act of immediate apperception'" (Ricoeur, 1978a, p.116).

The mechanisms which allow this innovation are dependent upon the nature of the lexical system, that is the indeterminate boundaries of the system ('associative field'), and the capacity

of words to accumulate meanings. This latter capacity makes change of meaning possible, whilst the former capacity defines its operation. Associative fields are created on the basis of contiguity or resemblance. Association by resemblance of sense is metaphor.

Ullman's theory of metaphor is thus a psychological theory in the sense that the principle of association of resemblance is a psychological notion. Ricoeur comments:

"This psychological mediation between semantics and rhetoric deserves attention. It carries very positive benefits, no matter what our later reservations may be. In the first place, a bridge is constructed between the individual activity of speech and the social character of language. The associative fields provide this mediation. They belong to the language, and they present the same character of latency as the 'storehouse of language' in de Saussure; at the same time, they demarcate a field of play for an activity that remains individual since it is an effort at expression: 'Whether it has to do with filling a real void, avoiding a verbal taboo, giving free play to the emotions or the urge to express oneself, the associative fields are what will provide the primary material for innovation.'"

(1978a, p.118).

The whole lexical system, however, is dependent on context, and therein lies its greatest weakness. Ultimately, Ullman must go beyond the word, beyond the name-sense dichotomy to the context, in order to disambiguate or simply to confer meaning. A semantics of the word is therefore incomplete, although the notion of polysemy has contributed directly to the theory of metaphor by breaking any suggestion of a one-to-one link between name and sense. As Ricoeur concludes:

"A semantic innovation is a way of responding in a creative fashion to a question presented by things. In a certain discourse situation, in a given social milieu and at a precise moment, something seeks to be said that demands an operation of speech, speech working on language, that brings words and things face to face. The final outcome is a new description of the universe of representations." (1978a, p.125).

For the remainder of *The Rule of Metaphor*, Ricoeur develops a hermeneutics based on discourse analysis, in which metaphor is the central concept:

"Metaphor presents itself as a strategy of discourse that, while preserving and developing the creative power of language, preserves and develops the heuristic power wielded by fiction " (1978a, p.6).

"Metaphor is the rhetorical process by which discourse unleashes the power that certain fictions have to describe reality " (p.7).

"... the 'place' of metaphor, its most intimate and ultimate abode, is neither the name, nor the sentence, nor even discourse, but the copula of the verb to be. The metaphorical 'is' at once signifies both 'is not' and 'is like'. If this is really so, we are allowed to speak of metaphorical truth, but in an equally 'tensive' sense of the word 'truth' (p.7).

Elsewhere (Ricoeur, 1978b) he attempts a similar task in respect of the psychology of metaphor, where he is concerned to establish a theory of imagination and of feeling:

"... there is a structural analogy between the cognitive, the imaginative and the emotional components of the complete metaphorical act and that the metaphorical process draws its concreteness and completeness from this structural analogy and this complementary functioning." (1978b, p.159).

For present purposes, it is Ricoeur's explication of the theoretical foundation of the monist/dualist dichotomy which is relevant. It provides an extension of the model developed by Mooij (1976) and emphasizes that the use of metaphor for innovation is firmly dependent on the dualist conception of metaphor.

## 5. THE PSYCHOLINGUISTICS OF METAPHOR.

### 1. Psycholinguistic Developments.

Possibly the most virile developments in the exploration of metaphor in recent years have been in the psycholinguistic and psychological study of metaphor. Much of this has grown in response to the work of Black (1962) and in the wake of the Chomskyan revolution in linguistics. Some of the major contributions and contributors to this development are described below, each presenting a review of research to date from a particular perspective.

Pollio et al (1977) represents a progress report on the work done by the Metaphor Study Group at the University of Tennessee. Their research has a strong psycho-analytic and educational interest, and the theory of metaphor is a prelude to techniques of therapy and teaching. From a theoretical point of view, their work is somewhat inadequate. There are major omissions in the discussion of the theory of metaphor, whilst the theorists quoted are by no means representative of the discipline. This results in a rambling discussion of



disparate ideas, centring on the notion of "tension" in metaphor (from Wheelwright (1959)), which is a sophisticated development of the Richards model of metaphor. This interactionist model has a strong appeal to psychologists, possibly because it is conceptually divisible and easily categorised into mechanical parts (e.g. Osborn and Ehninger (1962)).

Pollio et al. summarise as follows:

"The method of metaphor, then, comes down to one of simultaneous interaction where the elements paired must form a new whole having unique properties of selective emphasis and contrast. Only if such a new gestalt emerges from the combination is it possible for a figure to bring about its varied effect " (p.31).

Billow (1977) provides a similar theoretical approach to Pollio et al. (1977), in that he centres on the interactionist model of metaphor, and he arrives at this position through the same theorists, i.e. Richards, Wheelwright and Black. Again, the discussion is very limited and highly selective, and such an unstructured overview of the theory of metaphor is unlikely to generate

hypotheses of any fertility which the psychologist is presumably looking for.

However, Billow does include the 'metaphor as polysemy' view of Ullman, which other theorists ignore, and emphasizes metaphor's relevance to creativity, suggesting, amongst others, the following points:

1. Metaphor is "the creative response in miniature" (p.83).
2. Metaphor satisfies the four criteria of creativity, i.e. unusualness, appropriateness, innovation and condensation of meaning (p.83).
3. Metaphor may be used to identify creative persons (p.83)
4. Metaphor has a heuristic value in both science and arts (p.83).

The most thorough and searching review of theory and research into metaphor as a psychological phenomenon is presented by Ortony et al (1978b). This paper echoes the criticisms made above in respect of the lack of coherence and rigour in the theorising upon which the research is nominally based. The intention of the paper is to rectify this deficiency.

Ortony first distinguishes between various theories. He rejects the substitution theory on the grounds that it is simply not able to account for any but the simplest metaphors. The remaining theories discussed are the comparison theory and the interactionist theory. In other words, one monist theory is rejected on the grounds of explanatory weakness, and the remaining theories are both dualist theories. Presumably, this deficiency arises from a failure to recognise the theoretical distinction between the monist and dualist theories. This may account for the failure to discuss the strongest of all monist theories (the connotationist theory), even though it is represented in the research (Bickerton (1969), and Cometa and Eson (1978), with the latter presenting a Piagetian view of metaphor).

Since Ortony limits the discussion to dualist theories, he naturally slips into the terminology devised by Richards and elaborated by Black and Wheelwright; that is, metaphor is analysed into tenor, vehicle and ground. The difference between the interactionist theory and the comparison theory is attributed to the relationship between the tenor and the vehicle. The latter type does not move beyond the mere juxtaposition of the two, whilst the former defines a special intertwining or interpenetration of the

vehicle and the tenor which is described as a tension between the two. Ortony tentatively concludes that the interactionist theory is more powerful since it may absorb the comparison theory, whilst the latter would have difficulty accounting for some interactionist metaphors (for an attempt, see Perrine (1971)).

## 2. Metaphors and Language.

Probably the most useful contribution to the American tradition of research into metaphor is the collection of papers entitled Metaphor and Thought (Ortony 1979). This volume represents a vigorous assault on the problem of metaphor, signalling a renewal of interest in the topic by linguists. Of interest to the present study are those contributions which are at least peripherally concerned with the implications which the study of metaphor holds for the creativity of language.

Ortony (1979), in his introduction, characterises two differing approaches to the study of language and, indeed, the study of knowledge and cognition. Firstly, there is the tradition which he calls "non-constructivist", which sees language as a medium capable of directly describing

reality. Secondly, there is the tradition which he calls "constructivist", which sees language as contributing, along with perception, memory, etc., to a mental construction we call reality:

"It seems preferable, however, to attempt to relate two alternative approaches to metaphor—metaphor as an essential characteristic of the creativity of language; and metaphor as deviant and parasitic upon normal usage—to a more fundamental and pervasive difference of opinion about the relationship between language and the world " (p.2).

From this position, Ortony develops two varying approaches to metaphor. In the constructivist approach (more thoroughly represented in the volume) :

"meaning has to be constructed, rather than merely 'read-off', ... The use of language is an essentially creative activity, as is its comprehension " (p.2).

The non-constructivist position can only treat meaning as given, and non-literal use of language, therefore, as the violation of linguistic rules.

This distinction is developed in a slightly different way and using different means by Reddy (1979). He proposes two metaphors which he uses to describe how language users are biased towards describing their language and the cognitive acts implied in language. Reddy presents a host of evidence to demonstrate that when English speakers talk about talking and thinking, they automatically use expressions which imply one particular view of how language and thought work. The "frame of mind", or framework, which thus becomes evident is called "conduit metaphor":

".... evidence suggests that English has a preferred framework for conceptualizing communication and can bias thought process towards this framework, even though nothing more than common sense is necessary to devise a different, more accurate, framework." (p.285).

The conduit metaphor implies that thoughts, feelings, ideas, and other mental phenomena are contained in the signals which pass between language users. One speaker puts the thought into a signal and the other speaker unpacks it. Reddy provides 140 examples of standard descriptions of mental phenomena which imply the conduit metaphor for communication, as opposed to 30-40 examples which are metaphorically neutral or imply a different metaphor.

To counter his own thinking about thinking being biased by the conduit metaphor, Reddy proposes the "toolmaker's paradigm" which is described in a delightful way. The basic point is that meaningful communication is the result of some hard work at both the production and comprehension ends of the task. Mental phenomena are converted into signals not automatically, but through an act of construction by the producer and re-construction by the comprehender. Meaning is therefore created from the signal and does not reside within the signal. Words do not mean; only people mean (of de Saussure, 1959).

Now, the implications for a theory of metaphor are obvious, although they are not spelled out by Reddy. The conduit metaphor may be seen as a different way of characterising the non-constructivist position described by Ortony. It results in a view of metaphor as deviation, as a misuse of the conventions of language. It directly leads to a categorisation of metaphor as an attempt to transfer lexico-semantic features from vehicle to topic; that is, the connotationist view.

If the toolmaker's paradigm is a more accurate description of what language users do when they use language, then metaphor is a variation in the degree of difficulty

of the reconstruction task. Indeed, metaphor thus reflects the difficulty of the original construction task, which was motivated by the need to express something novel (by "novel" is meant not only novel to the producer, which may be familiar to the comprehender, but also novel in some absolute sense of "never-constructed-before"). The initial difficulty in encoding the novel mental construct into a linguistic signal is reflected in the consequent difficulty in decoding the signal and recreating the novel construct. The novelty of the construct will ensure that the reconstruction process can only be tentative without any guarantee of accuracy. As the metaphor's meaning and form become more familiar, so it becomes more easily understood, and may eventually approximate the status of idiom. In this sense, using metaphorical language is only different in degree from using non-metaphorical language.

But the implications of Reddy's distinction between given and constructed meaning for the notion of linguistic creativity are equally interesting. If meaning is constructed from linguistic signals, rather than automatically given, then we need to distinguish between the act of creativity in arriving at a novel mental construct, — such as a hitherto unperceived (unconstructed?) relationship — and its expression in a non-mental medium such as a linguistic signal. Presumably, a poet-painter such as



William Blake would have the choice of which form of expression he uses to communicate his novel mental constructs. Whether a metaphor or a drawing is used, the act of expression is an act of creativity separate from the act of invention.

Clearly, there is a good deal more to the distinction between thought and language. In one sense, the two are impossible to extricate and treat separately; any attempt to do so will founder simply because not enough is known about the nexus between the two, or, indeed, about each separately. In another sense, there is a common-sense distinction which is intuitively made, drawn in terms of private versus public domains.

For the purpose of the present discussion, a distinction is drawn but not defended. It is necessary, since it is important for present purposes to make a distinction between the private mental phenomenon and the linguistic signal which is used to make it public. Again, the extent of the interaction between the two is left moot. But even if it could be proven that, say, the two are merely different manifestations of the one phenomenon and, therefore, not separable in terms of motivating cause, the distinction drawn here remains valid because no statement is made as to the exact relationship between the two.

In short, it is postulated, in accordance with intuition, that there are two separate phenomena. If they are related, then the relationship is unstated, and is not pertinent to the use made of the distinction.

From this point on, in my study, creativity in language is confined to semantic creativity as opposed to the creativity involved in producing a novel mental construct. Although this latter type of creativity is probably the traditional intention of the description, it relates to a different field of inquiry. Whatever medium or internal code it is carried out in (see Fodor, 1976), it is not relevant to the present study.

My initial conclusion is that metaphor is a paradigm of language use which is the result of a novel mental construct being encoded into a linguistic signal. It may be described as linguistically creative because although metaphORIZING belongs to language, a metaphor is constructed by "breaking" some of the rules of language. Metaphor, paradoxically, is part of language use, but works by breaking some of the rules of language. Any rule-governed activity runs the risk of having its rules broken; in the case of metaphor, meaning is produced by breaking the rules.

This tentative conclusion begs further explanation, especially the notion of a "rule of language" and what it means to break such a thing.

Ganz (1971) provides a detailed discussion of the notion of "rules". She makes a convincing case that the typical use of the word "rule" in linguistic discussion is non-technical and imprecise.

The difficulty lies in the fact that any rigorous definition of the notion of the "rule" discredits a view of language as a rule-directed or rule-guided activity. This is so because :-

- (a) not all the rules of language are known and therefore it would be necessary to postulate a guiding or directing relationship based on unknown rules; any rigorous definition of the notion "rule"<sup>1</sup> precludes this possibility.
- (b) the description of a behavioural regularity is not the same as the behavioural regularity. "Finding regularities about human behaviour might point to a similarity in the structure of people, but it need not imply that the description of the similarity is just what the similarity is." (Ganz 1971, p. 110).

1. E.g. "utterances and inscriptions called rules are appropriately adopted, prescriptive, conditional linguistic entities having no truth-value."  
(Ganz, 1971, p. 104).

In this context, note the "appropriately adopted" requirement i.e. rules are explicit.

(c) any notion of "internalized rules" fails to account for all the facts since it does not and is not able to account for instances where people speak ungrammatically, i.e. break these internal rules. "Rules are such that they are, in principle at least, breakable. On the other hand, if this element of 'you are guided by unknown rules' is to be avoided, then the proponents of the 'internalist' rule-guided theory would have to explain how it is that we are not guided by them at times. In other words, what breaks down when people don't speak grammatically." (Ganz, 1971, p. 111).

This is not to say that using language is not rule-like and rule-describable. Both are certainly true, but it is not tenable to describe using language as a rule-directed or rule-guided behaviour (see Ganz (1971) for further discussion of these points).

The theoretical water has been muddied somewhat by the advent of transformational generative models of language. In general terms, these are models based on "technical" rules, similar to the rules of formal logic. Their existence may have lent credence to the view of language as a rule-directed behaviour. Such "technical" rules tend to be well-defined mathematical entities of the form  $A \rightarrow B$ .

As Sampson (1973) points out, Chomsky in fact uses at least two "technical" types of rules. First, there are the rules which relate to formations at the base "level" and which determine a particular set of possible sentence-representations. Second, there are the rules which define the relationship between related sentence-representations that occur at different levels (e.g. syntactic transformations, phonological rules).

Ganz (1971) takes linguists to task for not using the notion of "rules" properly. Sampson (1973) argues that, in fact, there is no reason why the linguist's use and definition of "rule" should be identical to the philosopher's use and definition. Sampson sees a relationship between the two uses (mainly through the logicians' use of "formation" rules and "rules of inference") but certainly not equivalence.

The TG grammarian's use of rules, then, may be nothing more than a defined and specific use of a piece of terminology that is appropriate to his purpose of building a model of language. A philosopher such as Ganz may use that same piece of terminology differently. Difficulties arise when TG grammarians also use that piece of terminology in a loose, non-technical sense to talk about their model building activities.

However, the model of a language is not the same as a model of language using ability. Chomsky has emphasised this in the past (Chomsky, 1961, p. 7) and he has generally been careful to distinguish his well-defined technical use of rule from the more widespread non-technical use of rule, but nevertheless the notions have been confounded. The prevalent view continues to be that language is rule-directed and from here on such a description will be interpreted in a non-technical sense to mean that language is rule-like and rule-describable. A model of language (e.g. a TG grammar) is a description of a formal system which includes the technical notion of "rule" that is able (to some extent) to predict the regularities of language behaviour.

What then is the relationship between such models and the language user ? In one sense, this question is almost irrelevant to this inquiry, since it is the well-worn distinction between competence and performance, which we could not tackle here. In another sense, it lies at the heart of this inquiry in that the claims made here about creative language use points up inadequacies in the traditional models of language. That is, what language users do is not accounted for by the models.

The Chomskian view holds that the rules of language (that is, of the model of language; of the grammar) are :-

"constructed by the mind in the course of  
the acquisition of knowledge"

(Chomsky, 1971, p. 33)

This does not clarify the relationship between these constructed rules and the actual behaviour of the language user. In other words, what is the relationship between the grammar and the user ? Is the grammar a black box or theoretical construct with simple predictive powers or is the grammar a model of a structure of the mind which controls the production of language ?

One aspect of this problem which is of interest here is that some components of the grammar are sometimes not adhered to. That is, some rules of grammar are sometimes broken and some of these breaches are not accidental and do not lead to meaningless utterances.

In Chomsky's words;-

"They [the rules of grammar] can be violated, and in fact departure from the rules can often be an effective literary device" (ibid, p. 33)

Further,

"deviation from strict grammatical rule is .... a feature of normal usage as well ...." (ibid, p. 33-32)

Despite this, Chomsky apparently sees it as no more than an oddity, or at best irrelevant to his purpose. It is my contention that it is relevant to an understanding of language and that any model of language will have to give an account of this rule-breaking phenomenon. It is not just that some of the rules are "wrong" in that they are sometimes broken, but rather that they are mostly "right" and yet can be utilised to express meaning by being broken.

In practice, breaking the rules of language is common indeed. As an example, I do not think we need go beyond the one provided by Chomsky :-

"To take a particularly simple example, Rebecca West, in criticism of the view that art reflects nature, wrote that 'A copy of the universe is not what is required of art; one of the damned thing is ample.' The statement violates the rule of grammar that requires a plural noun in such phrases as 'one of the books is here' or 'one of the damned things is enough.' But the statement is nevertheless exactly to the point. We can often exploit the expressive resources of language most fully by departing from its principles."

(Chomsky, 1971, p. 32).

However, other examples are provided in the course of the discussion.

Although much has been made so far of Mooi's theory of metaphor, it is being utilised as the best available theory rather than supported as final doctrine. It can certainly be improved upon and with recent research in semantics and formal logic, this would be a worthwhile task. It is not a task that this present inquiry can fulfill.



I note here that this notion of metaphor as paradox is almost impossible to describe without resorting to metaphorical expressions. Black (1979) uses the analogy of "epi-chess", in which the players agree to allow variations on the rules (e.g. "any piece can move like any other piece"), providing both players agree. Black notes that although it is a primitive model of conversation, it suffers from assuming a "super-rule" which governs when and how the rules may be broken. Metaphor is far more lawless than that!

It is clear that this notion of how metaphor works and how it is creative requires further exploration. That is the task of the next section.

### 3. The Interactionist Metaphor.

The most precise research into metaphor by psychological standards is represented by Ortony (1979b) and Tourangeau and Sternberg (1978). In a considerable way, both studies derive from the pioneering work by Tversky (1977) on the notion of similarity. Both studies develop Tversky's theoretical work and relate it to the study of metaphor. For present purposes, the contribution of the two studies will be considered jointly. Ortony expressly makes the point that the two approaches are compatible.

Tourangeau and Sternberg (1978) are summarised by Ortony (1979, b) as follows:

"Their research assumes a representation in which the topic and the vehicle of the metaphor (the first and second terms respectively) are viewed as belonging to different subspaces within a more global superspace. When the two terms are juxtaposed in a metaphor, one can think of superimposing their corresponding local spaces, co-ordinating the dimensions. Then, the goodness of a metaphor can be characterised in terms of the within-subspace distance and the between-subspace distance. If the local subspace from which the two terms are drawn are remote but the superimposed within-subspace distance is small, then we have a good metaphor " (p.178)

Ortony's terminology is slightly different:

"Metaphor is a non-literal comparison between objects or between relations between objects " (p.177).

"the ground of metaphor will be shared attributes of the underlying non-literal similarity statement and, in particular, those attributes that are of high salience for the topic.... The topic and vehicle interact in the sense that the topic term imposes

constraints on the attributes of the vehicle term that can be applied and that are of high salience for the former but of low salience for the latter " (p.177).

"Salience can be operationally defined in terms of subjects' estimates of the prominence of a particular attribute with respect to a concept to which it does or could apply " (p.162).

What is immediately striking about this kind of characterisation is that it is capable of dealing with the issue of what makes a good metaphor. For example, Tourangeau and Sternberg use as an instance of metaphor one of Donne's conceits from "Valediction: Forbidding Mourning:"

"We propose that metaphors are more apt as they compare objects drawn from more diverse domains and as the fit between tenor and vehicle gets better. Ideally, on this hypothesis, the tenor and vehicle should occupy exactly analogous positions within their domains (so that within - domains distance is maximal). Donne's conceits, with their elaborated points of comparison between diverse objects, are examples " (p.12).

The conceit is such a difficult problem for theorists that most have preferred to ignore it. It appears to work at the limits of what it is possible to do in language without becoming meaningless. Consequently, it is a vexatious problem for monist theories of metaphor. Those who view metaphor as aberration can hardly cope with the success of such an extreme "aberration".

The interactionist theorist, on the other hand, can cite the conceit as no different from any other metaphor except, perhaps, for its audacity in selecting subjects so disparate in other attributes. Tourangeau and Sternberg detail what Mooij (1976) called the D-dimension, and point out that the poet's success lies in matching the location of attributes within the two respective domains.

Although these two studies provide a description of metaphor which in detail and precision is more advanced than other work, it does not affect in any significant way the relationship between metaphor and the notion of creativity in language. These studies confirm the interactionist view, and move closer towards a definitive statement of how metaphor works. However, they add little to how metaphor is related to language in general.

Ortony has put forward the concept of non-literal similarity, which is a powerful tool for illuminating metaphor, simile and analogy. The implications for a theory of language are less clear, except that it broadens the scope of what is legitimate data for the study of language.

Metaphor is a meaning-related component of language and part of the opaque field of semantics. The interactionist theorists have added one more difficult phenomenon to the field.

#### 4. Creative Metaphors.

Black (1979) poses the problem of creative metaphors in the following way:

"A successful metaphor is realized in discourse, is embodied in the given 'text' and need not be treated as a riddle. So the writer or speaker is employing conventional means to produce a non-standard effect, while using only the standard syntactic and semantic resources of his speech community. Yet the meaning of an interesting metaphor is typically new or 'creative', not inferable from the standard lexicon. A major task

for theorists of metaphor, then, is to explain how such an outcome — striking for all its familiarity — is brought about " (p.23)

He concludes:

"But what is a 'creative', rule-violating metaphor producer really trying to do. And what is a competent hearer expected to do in response to such a move?" (p.24).

From these comments, as well as others referred to in previous sections, it is clear that in a general description of metaphor it is attractive to use the word 'creative' to describe at least one aspect of metaphor. But, equally, there is a reluctance to specify this description further. It is a fact that many commentators refer to the creative power of metaphor in their opening comments only to abandon the description thereafter. Witness the use of inverted commas in Black (and others) when using the word, as if rather unwilling to use it at all."

Any discussion of metaphor is usually handicapped by lack of agreement as to what is a suitable metaphor for discussion. Black suggests that his examples are middle-of-the-range; neither too platitudinous nor too intricately

complex. However, others make the same claims of their examples. It is, therefore, reasonable not to make too much of individual examples, but to attend to the critical comments instead.

Black selects three metaphors to precede his discussion and uses them to make his first point: that metaphors are always subject to multiple interpretations and there is nothing that can be done about that:

"... a metaphorical statement involves a rule violation: there can be no rules for 'creatively' violating rules. And that is why there can be no dictionary (though there might be a thesaurus) of metaphors " (p.25).

and;

"There is an inescapable indeterminacy in the notion of a given metaphorical-statement so long as we count its import as part of its essence " (p.25).

This argument seems to rely on the existence of metaphors complex enough to allow multiple interpretations. But is this very different from the multiple interpretations speakers of English have for literal language? The meaning

of a metaphor may be an individual matter (indeed, if meaning is "constructed" rather than "unpacked", then it must be), but the same holds for every other meaning in language. The interesting fact is that there is agreement on meaning, and this is true for metaphor as well. It is granted that there is indeterminacy, yet this is not randomness and in the broad agreement lies the evidence for the ubiquity of metaphor.

Precisely what Black means by his comments on rule violation is difficult to say. It seems that he is suggesting that there is no standard response to metaphor because that would result from the use of common rules for deriving the meaning of metaphor; since metaphor violates rules, there can be no standard response. In its strict sense this is true, but it is not one standard response that is presumed, but rather broad agreement. Again, is there a "standard response" for any entry in the lexicon? In any case, rule violations can be incorporated into a rule-governed activity. In some games, there is provision for the rules of the game to be rewritten as the game is played. Of course, this then becomes a "super-rule"; but perhaps this is so in language. For instance, Grice's (1975) rules of conversation may be examples of super-rules.



To develop this point a little further, a metaphor is usually detected because the speaker makes an utterance which is somehow impossible (unlikely, implausible, etc.) The listener, remembering his Gricean super-rule - "the co-operative principle" - has a go at making sense of the rule-violation, and apparently manages to construct something like the meaning which the speaker was attempting to express.

The point is that the rules of language may be ordered so that the rules of pragmatics can override, or be used to overcome, the rules of semantics and syntax. If this is so (or something like it), then metaphor becomes a pragmatic device in which context of conversation and situation overrides internal inconsistencies. It is fairly apparent from psycholinguistic evidence that metaphor is generally dependent on context (Ortony et al, 1978a, Verbrugge and McCarrell, 1977). In addition, it is apparent that if the listener thinks the speaker is insane, or incomprehensible for some other reason, then even if the insane person makes a metaphor, it will fail because the speaker will not bother to co-operate and decode it. One only has to imagine the sane poet, classified as insane by his audience (the nursing staff?), producing wonderfully rich and potentially rewarding metaphors which everyone around him ignores, in order to appreciate the value of Grice's

co-operative principle (as well as the precarious position of poets).

We can now return to Black's argument with less qualms about the strangeness of metaphors. In fact, Black devotes the last section of his paper to the question of the creativeness of metaphors. Unfortunately, the creativity concerned pertains to the creation of constructs which describe the real world. Black considers metaphors in the mould of models, maps, charts and diagrams; all are ways of showing how things are; to the extent that it may not have been expressed before, the device is creative. This conception is clearly not related to my concern which is to see how metaphor functions as a language-mechanism that is able to move beyond the constraints of the rules of language.

Paivio (1979) appears more directly concerned with metaphor as an example of linguistic creativity:

"metaphor highlights the phenomenon of semantic creativity, the capacity of language users to create and understand novel linguistic combinations that may be literal nonsense" (p.150).

and:

"semantic productivity must be regarded as a salient

design feature of metaphorical language, just as syntactic productivity is of language in general, despite the repetitiousness of specific grammatical construction in every day speech " (p.150).

Pavio briefly reviews the psychological evidence for the existence of semantic creativity, centring largely on the finding that speakers are capable of producing semantic equivalents or paraphrases of many given expressions such as proverbs. In general terms, polysemy presents a problem for most theories of language in that it demands a degree of semantic productiveness of which they are not yet capable (Anderson and Ortony, 1975). The earlier study by Gleitman and Gleitman (1970) on paraphrase points up many of the same problems. It is Pavio's aim to attempt to integrate recent work on memory and cognition with the theory of metaphor in order to produce a conception of language sufficiently powerful to embrace semantic creativity.

However, as his argument is developed, it becomes clear that Pavio is concerned with the conceptual activity which precedes its expression in the form of metaphor:

"The comprehension of metaphor is basically a cognitive problem which centres around the following question:

How does a novel conceptual entity arise from apparently disparate parts? ... for the creator of the metaphor must first grasp the significance of a metaphorical relation before it is altered" (p.152).

This is what was above referred to as conceptual creativity. It has an interesting link with metaphor which is one of its linguistic forms, but is not identical to it. It is quite conceivable that the 'novel conceptual entity' is expressed in a non-language form, e.g. diagrammatically, or even in language, but non-metaphorically (using other figurative language).

In fact, Pavio is examining language comprehension, specifically in the light of metaphorical language. He is less concerned with the facts of language which allow metaphor to be comprehended. It is unfortunate that, as in other studies, the two are not clearly distinguished.

In a related study, Fraser (1979), continuing Pavio's orientation, examines the comprehension of novel metaphors. He concludes:

"... there is little consistency across speakers, ... supporting the position that the interpretation of metaphor is based within a theory of language use, not a theory of grammar" (p.184).

Probably the major difficulty with Fraser's study is that the metaphors presented to the subjects were arbitrarily created and not related to any context. Verbrugge and McCarrell (1977) and Ortony et al (1978a) emphasise the relevance of context, especially of metaphorical statements which do also have a complete literal meaning. The arbitrariness of the metaphors would lead to inconsistency, since all contextual clues were removed; subjects were clearly providing idiosyncratic responses within certain weak restraints pertaining to the standard meanings of the words used.

Clearly, then, the psychological studies relate too closely to the comprehension and production activities which underlie metaphor and other creative conceptual activity. It says little about how all this relates to the language system within which it operates. The difficulty, of course, is that with metaphor we are not only operating at the limits of the grammatical system, but also approaching the domain of conceptual activity or cognition. It has been assumed that the public language shared between humans is different from the conceptual medium employed in private thought. That is, there is a language for speaking and a language for thinking (see Fodor, 1975).

This distinction is based on the fact that a novel concept may be expressed metaphorically, or it may be expressed in an altogether different medium such as a drawing. Also, metaphor may be employed to express an "old" concept in a novel way, where the form selected re-invigorates the concept.

The question is, what happens to the language system when a metaphor is used? The short answer is that it depends on the view of language system employed; because if the language system is considered as a rule-governed activity which only incorporates rules that operate at the level of phonology and syntax, then metaphor is obviously a rule-breaking activity and difficult to incorporate into any model of the language system. This is because metaphor always involves or implies semantic anomaly. Even if the language system contains some semantic rules, which operate at the level of the individual sign (the word), then metaphor is still a rule-breaking, semantically anomalous phenomenon.

However, if the language system incorporates a broad semantics in which the function of language — to mean — is primary, then metaphor can be seen as a mode of meaning which utilises the lower levels of the system (syntax, word-semantics, sentence-semantics) to make meaning in

its overall sense. It is a level of meaning which utilises word-semantics by juxtaposing two contradictory units of word-semantics to produce a higher level meaning. This conception implies that the higher level rules of pragmatics (e.g. Grice's co-operative principle) can overrule lower level rules which suggest anomaly.

Wheatley (1970) convincingly argues for a super-rule which he calls "the Overriding Rule":

"If some rule (which can be broken) is obviously broken, look for the explanation and act sensibly in the light of it ".

He claims that unless such a rule exists, there is no conceivable way in which an expression such as "bachelor girl", when uttered for the first time, could be understood.

The point is equally applicable to metaphor. Any instance of metaphor is marked by the breaking of some rule. However, the existence of the Overriding Rule allows a meaning to be constructed.

This process implies a pecking order for rules. At least, it suggests that pragmatic rules can override syntactic or semantic rules. Further support for an order of application comes from the fact that syntactic-

semantic rules can override, or at least dominate, phonological rules. This is clear from the positioning of stress patterns, which are directly dominated by semantic considerations.

The process of deriving a meaning from an utterance therefore involves the application of various rules of various levels.

To take Pascal's metaphor "Man is a thinking reed", the juxtaposition of 'thinking' and 'reed' involves a semantic clash at the level of the word. The whole meaning is produced by taking the meanings (including the connotations and implications) of the two words and letting them interact or interpenetrate each other until a unified concept appears (that is, the conception of man as a delicate, fragile, growth, yet strong in his mental powers). This production process cannot be verified against a production manual, unlike word-semantics (dictionary), but it is within a range of variability that ensures comprehensibility, whilst not avoiding disagreement on precise interpretation.

The rules of language, whilst defining with some precision the literal domain of language, also afford the opportunity for breaking these rules. Without the rules



of word-semantics, there would be no metaphor. Metaphor exists because the rules are a social agreement, unlike the laws of nature, and, therefore, can be broken (Gantz, 1970). Like the rules of a game, or moral rules, their very existence implies the possibility of their negation.

Only the ultimate rule (the Overriding Rule) cannot be broken because it defines the parameters of the language game. If it is ignored, then one is playing a different game.

Therefore, metaphor operates on the boundaries of what it is possible to do in language and with language. Metaphor itself has boundaries which can be crossed to produce metaphors which are not comprehensible (e.g. Black's (1979) "the chair is a syllogism"). but these boundaries seem to relate to what the listener can cope with.

A listener may make an attempt to interpret a metaphor, and still be unsuccessful in coming up with anything sensible or meaningful. Experimental evidence suggests that when asked a person will produce some kind of interpretation; this often occurs when the test material is generated by combining randomly selected words. However, interpretability is also related to the experience of the listener. Tourangeau and Sternberg (1978) cite

evidence for differences in the capacity of subjects to respond which was linked to their background (critics v. novices).

This point is important, since it emphasizes that we are not dealing with a phenomenon identical for each language user. Metaphoricity relates to the idiolect of the language-user, both in production and comprehension. There are individual differences, and the interactionist theory copes with these through the subjective notion of "salience". One person's salience is another person's obscurity.

Whenever a metaphor is created, it contributes to the language system in two ways. Firstly, it reinforces the way in which the metaphor was constructed and re-emphasizes how the rules of the system may be used to mean. Secondly, the actual usage may be preserved and become a part of the vocabulary, eventually losing its vividness and operating only as a distinct unit with a specifiable meaning comparable to the word-semantics level of meaning. This kind of institutionalisation or absorption into a lower level of the system can happen to a phrase or a complete sentence, thereby producing an idiom.

As Ortony (1975) puts it, metaphor is necessary. It is necessary because there may not be any other way to express in words what is being expressed. It is a compact, catachretic, device and what it lacks in precision (due to multiple interpretation) it makes up for in accessibility. Generally, everyone can follow some metaphors; they can be made complex, but usually only in specialised contexts such as poetry. Also, it is capable of operating in the affective domain of language, where considerations of strength and beauty are important, precisely because it is not confined to word-semantics.

The model of metaphor described by Mooij (1976) is useful in drawing attention to the multiple effects of metaphor. What Mooij describes as the C-dimension relates to the power of the metaphor to re-organise conceptual structures in the brain; whatever the listener/reader thought of the primary subject before comprehending the metaphor, he now thinks of it differently. On this dimension, the success or strength of the metaphor is judged by the extent of this conceptual re-organisation. All this suggests that the C-dimension belongs not to the linguistic aspect of metaphor, but to its cognitive aspect. The C-dimension can also be ascribed to other forms of expression (models, diagrams, paintings, etc.) which can cause such a conceptual re-organisation.

The D-dimension is considered by Mooij to be less important or less essential. Yet, without it, the model would be incomplete, since no distinction could be made between metaphors in which the primary and secondary subjects are already conceptually close to each other, and those in which they are entirely disparate. There is an element of creativity in selecting primary and secondary subjects which relates to the artistry of the producer. It is the D-dimension which is manipulated by the audacious poet; to test its limits is to test the limits of the listener's ability to comprehend the metaphor. To take an example:

- (1) the Rhine is a sewer;
- (2) the Rhine is the aorta of Europe;
- (3) the Rhine is the mother of Holland.

In (1) there is such closeness between the primary subject (the Rhine) and the secondary subject (a sewer) that it risks being a literal statement of fact rather than a metaphor.

In (2) the distance between the primary subject (the Rhine) and the secondary subject (the aorta of Europe) is sufficient to see the purpose of the metaphor, but still the relation is obvious. In (3) there is a strong chance that multiple interpretations will occur, e.g:

- (4) Holland was created by the silting of  
the Rhine delta;

- (5) without its position on the Rhine, Holland would not have the economic status it has now.

This is caused directly by the distance between the two subjects, which forces a greater amount of effort to be expended by the listener to interpret the metaphor. Nevertheless, the D-dimension represents a task related to thinking rather than to using language. It is unmistakably carried out using language, but it represents the link or interface between language and thought.

It is the R-dimension which is the hallmark of metaphor as a linguistic phenomenon. It is also the most difficult to capture and describe in words which are not metaphorical themselves. It is on this level that complex metaphor works, and it is here that descriptions of interaction and interpenetration jump to mind. It is at this level that metaphor operates as a mechanism for semantic creativity.

The R-dimension distinguishes between monistic and dualistic metaphors; between metaphors such as:

- (6) John is a chicken;

and

- (7) John is a praying mantis.

(It is assumed that context will dismiss the literal meaning of "a chicken called John".) Theoretically, it distinguishes between the connotation theories of Beardsley and the interactionist theories of Black. (The C-dimension distinguishes between Black's theory and the comparison theories, e.g. Miller, 1979).

The R-dimension focuses attention on the secondary subject and characterises the strength of the reference to the literal meaning of the secondary subject. In the case of (6) there is little reference to the literal meaning of "chicken"; the expression is so familiar as a description of cowardice that there is no real reference to the literal meaning. In the case of (7), it is necessary to work on the metaphor in order to derive its full meaning. In isolation, this is difficult, but context would normally provide clues that would ensure disambiguation: placed in the context of a description of John's attitude to women and his sexual approaches to them, the metaphor may take on more meaning.

Following Mooij, it is suggested that upon encountering a high R metaphor the listener, with the assistance of contextual clues, employs a pragmatic rule (the co-operative principle) to decode the metaphor's anomalous meaning at sentence level to construct a proper meaning at discourse

level. In the case of (7) some appropriate element of the meaning of the word(s) "praying mantis" is selected and projected on the meaning of the word "John".

Now this description is clearly imprecise and metaphorical. "Appropriate element" covers a host of questions which are not answered. Ortony (1976) and Tourangeau and Sternberg (1978) have moved some way towards a description which is more precise. They build a subjective element into the description (salience) which accounts for individual differences. At the same time, they quantify, in geometrical terms, the relations between the primary and secondary subjects.

More importantly, the description arouses questions as to the nature of "projection", a metaphorical term. Black (1962, 1979) discusses this in detail, but the present concern is the implications for semantic creativity. Somehow, this projection produces a new meaning (although this idea, the essence of interactionism, is denied by the comparison theorists) which adds to the stock of meanings possible in the language. It is a language-based meaning, because it would not arise without language; it is a direct consequence of manipulating linguistic signals to manufacture a new linguistic signal.

In fact, the new meaning embodied in the new linguistic signal (the metaphor) may become a stock part of the repertoire available to members of a speech community. Somewhere between its creation and its entombment as a "dead metaphor", there occurs a process of degradation whereby the metaphor descends down the scale of the R-dimension. Presumably, it takes less work to employ a dead metaphor than to create a new one, and thus entropy will ensure the process of degradation. At the same time, human experience moves on and the mechanism of metaphor creation responds to the needs of the situation. Metaphor both uses the linguistic resources to create and express the new meaning. And that is the paradox of metaphor: it is at one and the same time the producing mechanism and the product.

Semantic creativity, in the case of metaphor, makes possible the extension of meaning in language. It is necessary because meanings are disappearing as expressions are under-utilised and forgotten — imagine the metaphors no longer available to us in English. Without the regenerative process of metaphor, our language would degenerate to a stock of basic meanings, sufficient only to cover the literal requirements of the day.



If a computer were to be programmed with the literal, dictionary meanings of English and without the pragmatic rule of co-operation between language users, then that might be English without metaphor. Now, if the computer could somehow experience (but not through a linguistic input) a new meaning which it wished to express, then it would simply not be able to do it. As long as human speakers experience new meanings which require expression, metaphor is essential, because ultimately there is no more convenient way of expressing a new meaning. (There are other, non-linguistic ways but it is not always convenient to make a drawing or execute a dance).

##### 5. Conclusion.

Metaphor, as a mechanism of language, works by breaking the rules of language. The resulting anomaly is a signal for the listener to apply the Overriding Rule in order to determine a meaning. Therefore, metaphor is a pragmatic mechanism.

The anomaly which triggers the application of the Overriding Rule may be at word-level or at sentence-level, e.g.:

- (1) "bachelor girl"—lexical anomaly;

- (2) "The old warhorse is starting to slow down"  
 (referring to the Prime Minister) - semantic  
 anomaly.

It is conceivable that a complete text may be metaphorical, as in a parable, in which case the anomaly is at discourse level. In all cases, the Overriding Rule governs the determination of meaning.

The Overriding Rule is the only rule of language which cannot be broken. If it is ignored, then language is no longer being used.

Metaphor is the mechanism used to express meaning which cannot be accommodated within the standard rules for expressing meaning. The intended meaning is usually novel in that it has not been expressed before. The particular expression which results may become an institutionalised part of language - an idiom.

Metaphors differ in their success because the mechanism is discriminant. The Overriding Rule does not guarantee that a meaning will be determined. That relies on the goodness of the metaphor, which is dependent on the relationship between the two domains of the two subjects and the salience of the attributes which compose the grounds for the non-literal comparison.

Metaphor resides on the border between competence and performance. It is entirely dependent on (breaking) the rules of the grammar. At the same time, it is dependent on the Overriding Rule (a pragmatic rule) which is an aspect of usage. Therefore, it can easily be described as a peripheral grammatical mechanism.

Much more needs to be known about the relationship between metaphor and idioms, about the rules for metaphorizing and about changing grammars, before models of language which incorporate metaphor can be built. What is known, however, suggests that it can no longer be ignored by the model builders.

So far, in this study, metaphor is the closest phenomenon yet to represent creativity in language. We have excluded syntactic creativity as a misnomer. We have excluded pragmatic creativity because, following Chomsky (1980), it can be seen to relate to conceptual structures in the brain, rather than to language. Semantic creativity seems the most fruitful area of investigation, and as a part of this, metaphor is a well-studied device for semantic innovation. The purpose of the next chapter is to continue the exploration of less well-described examples of semantic creativity.

## 6. CREATIVITY IN LANGUAGE.

### 1. Introduction.

The examination of metaphor has shown that there exists a capacity in language for going beyond the rules of syntax and semantics and yet producing comprehensible utterances.

Much of recent work in language has centred on the notion that language is a system and that it is the task of linguistics to explicate the rules and elements of this system. However, it is an assumption that there is only one system that can describe the whole of language.

The part of language which has received the most attention is the part which Chomsky has called "the grammar of language". It has focussed on the structural rules of language and has given most attention to syntax. It has also involved the system of sound symbolisation, that is, phonology; and of late, has turned to the system of meaning, especially as it relates to syntax. Chomsky has attempted to confine all this within the "grammar" and juxtaposed it with "usage".

The theoretical notions of "competence" and "performance" are at the heart of the distinction between "grammar" and "usage". In itself, the distinction is practical enough, for it establishes a discrete area of investigation within the generally amorphous phenomenon of language. Further, the distinction is valid in that there is ample empirical evidence to show that there is a difference between what a speaker does and what he is capable of doing.

It is, however, only one distinction among many that may be made, and is not necessarily more important than, say, the distinction between the physical signs (sounds) and the mental significance (meaning), or even between what is said (semantics) and what is done (pragmatics).

The point is that it may be fruitful to consider language as a system of systems, in which all the various contributing factors are governed by rules which are not identical for all systems and may even compete with each other.

After all, the phonology of language makes the most out of the least elements, whereas the lexicon of language is at best a fuzzy set in a constant state of flux. It hardly seems likely that such variety can be contained within the one single system.

In such a system of systems it becomes possible for the language user to make alterations to one or the other system or part of a system to produce a certain effect. The relationship among the systems becomes a factor in the language. Through addition, deletion and alteration of parts of the system, a desired effect may be obtained.

It is in this sense that language is creative. Creativity is the manipulation of the various organised parts of language to produce an effect. It is the reconstruction of the parameters of language.

This approach to language has been adopted by De Beaugrande, with the specific aim of exploring the creativity of language.

## 2. The Approach of De Beaugrande.

In his paper "Linguistics and Creativity", De Beaugrande (1978) attempts to outline a general theory of creativity in language.

He begins his analysis by juxtaposing two approaches which attempt to accommodate the creative aspect

of language. Firstly, there is the tradition, derived from the linguistic study of literature, which treats creativity as a departure from the norm. The dominant concept is "deviation" and the implication is that creativity is outside the language system, which is composed of specifiable elements and rules. Comprehension of the "creative" utterances is possible through a process of analogy and this may lead to new elements and rules. De Beaugrande calls this the externalist viewpoint.

Secondly, there is the internalist viewpoint, which is described as arising from the Chomskyan approach to language. That is, creativity is inherent in the system of elements and rules because the rules are such that an infinity of sentences can be produced.

The two views are contrasted in that:

"The externalist view gives no standards to distinguish non-grammatical poetry from nonsense; by the same token, the internalist viewpoint provides no means to distinguish between the external linguists' banality of 'The cat sat on the mat' and a well-formed poetic utterance such as Tennyson's 'The splendour falls on castle walls' " (De Beaugrande, 1978, p.3).

Clearly, De Beaugrande is referring to what have been called, in the present work, "rule-governed creativity" and "rule-breaking creativity".

De Beaugrande outlines some of the difficulties in using these two points of view in textual analysis, and then turns to a formulation which tries to avoid these difficulties. This formulation is given the description of "motivated modification of systems". (This approach is explored in detail in De Beaugrande and Dressler *Introduction to Text Linguistics* (1979)).

Briefly, language is viewed not as one system of elements and rules, but as an intersystem, which is:

"an integrated set of participating systems. Each system is definable by three factors:

- (1) the elements it contains;
- (2) the organization principles applicable to those elements; and
- (3) the correlation of the system to others within the system " (1978, p.4).



It is noted that by this definition any text is itself a system but since a text is the actual and only occurring manifestation of language, it is given the tag transsystem. "Texts imply the potential for transcending language systems, that is: modifying either the repertory of elements, the organizational principles, or the correlation of systems." (p.4).

It is the modification of part of a system which is relevant to the theory of language creativity. Such modification is carried out for a communicative purpose; that is, it is motivated by "the demands of a particular communicative situation" (p.4). Random modification would produce a "non-text" (or nonsense).

The modification of a language system has certain restrictions placed on it by the particular communicative situation. The tolerance level of different individuals, social groups, social situations, etc., varies and a successful modification requires that such tolerance levels be respected.

De Beaugrande emphasizes that the communicative process he outlines involves both speaker and listener (writer/reader) in an active way, because the original modification has to be reconstructed by the listener.

There is ample room for ambiguity in this process, and multiple interpretation is quite possible; in the case of literary texts, it may even be a predominant characteristic.

The nature of the modification process is briefly discussed by De Beaugrande. He postulates that the modification mechanism is best described as a bundle of strategies, as opposed to rules which are standardised. He does this in order to preserve the element of individual freedom inherent in the modification mechanism. These strategies collectively constitute "creative competence".

The individual language systems vary greatly. The phoneme system contains elements few in number, perhaps consisting of a closed set; whereas the lexical system contains many, perhaps indefinitely many, and consisting of an open set. The organizational principles which govern the combination of elements may be rigid (e.g. the exclusion of certain phoneme-clusters or syntactic sequences) or flexible (e.g. word-formation). Generally, modification of rigid organizational principles or of closed sets of elements is less tolerable than modification of flexible organizational principles, or of open sets of elements. This range of tolerance is vital in literary textual analysis.

The modification strategies are all based on recombination. Simple operations such as addition, deletion, and alteration account for the modifications made to the three integrated sets (elements, organizational principles, intersystem correlation) of each system. This allows for a vastly productive intersystem.

De Beaugrande completes his outline by analysing some of Lewis Carroll's work in some depth, and he concludes with a definition of creativity:

"Whatever modifications are performed upon prevailing systems, be they composed of phonemes, morphemes, narrative sequences, or real-world organization, language users gain new insights into both the standards of those systems and their potential for change. In short, creativity is the process whereby we become aware of the present and the possible conditions for the organization of cognition, and whereby we enable others to re-enact that awareness " (p.9).

Obviously, De Beaugrande only presents the bare outline of a theory of language. However, it is possible to see the orientation he is advocating, as well as to generalise about the essential nature of this orientation.

Basically, De Beaugrande is enlarging the traditional concept of the grammar of language to include all that is relevant to the understanding of any utterance. In a sense language has become open-ended in that the grammar now includes not only the phonology, the syntax and some lexico-semantics, but also everything else that pertains to meaning, including the structured perception of the real world.

This is a radical step, and raises virtually every problem of interest to modern linguistics. Nevertheless, it is of value in that it contributes to the general development of a conception of language away from the syntactic conception which has dominated modern linguistics for most of this century. It retains the structural approach of the syntacticians, but puts it at the disposal of the theoreticians concerned with language as the mechanism that enables meaning to be expressed.

The essential structural aspect of language is that it consists of systems, each of which consists of elements, rules, and ways of relating that system to other systems. The task of the linguist is to delineate these systems and describe the elements, rules and correlational aspects.

Because each system consists of elements and rules, it is possible to describe only these aspects and manufacture an internally consistent system. However, at some point this system relates to other systems, and unless this correlation is made explicit the system remains an isolated and sterile thing.

For the reasons that Chomsky used to describe his syntactic system as "creative", all these systems are creative. They are composed of elements and rules, and therefore can be made to be infinitely productive. Other systems provide a context which can limit this productivity, such as the cognitive limitations on the production of syntactic strings, or real-world limitations on the production of phoneme strings (there are acceptable but unused strings). These contextual restrictions belong to the correlational aspect of each system.

Clearly, such a conception of language as an intersystem is compatible with the conclusions so far drawn in this study. Syntactic creativity, although the description is questioned, is clearly one way of describing the infinite productivity of a system that consists of elements and rules.

Metaphor can now be reinterpreted in a slightly different way. The overall meaning of a text is derived by following the semantic-syntactic rules that govern the process of interpretation; the details of this are unclear. What is clear is that meaning can also be derived by not following the rules; by breaking them in such a way as to demand an interpretation to be made despite the breach of rules.

Table 1 demonstrates that meaning in metaphor is derived by one system overriding another system.

Therefore, metaphor is produced by the relation between systems; by the system which takes precedence, overriding the rules (organizational principles) of another system. It is a language device which relies on intersystem relations.

In the examples given in the table, it is clear that if the relations between the systems are ignored, then metaphor ceases to exist. The phrase meaning of "a bachelor girl" is more than the sum of the word meanings, since some of the word meanings are composed of contradictory lexical features (i.e. + male and - male). Essentially, metaphor is a strategy which says:

"Ignore +/- clash at feature level, if at a higher level (the phrase) a significant construction can be derived."

Similarly, with "The old warhorse is ready to be put down", where there is a clash between sentence meaning and context, the next highest level (textual meaning) determines that a significant construction can be derived. This becomes clearer if the sentence is placed in a passage or a longer text, which then provides the context. In the example used here, the situation of the utterance provides the context.

The non-literality of metaphor is, therefore, another way of stating that the significance is derived from a level different from the literal utterance which carries the anomaly.

Since metaphor is traditionally considered within the framework of literary text, it is worth noting that generally the context of a literary metaphor is the whole surrounding text. Literature contextualises itself and is, or can be, independent of its situation of utterance. It is this which makes it different from any other text.

It is also evident that the intersystem relation which enables metaphor to exist is based on the notion of meaning. Metaphor does not seem to occur below the word level. It only relates to meaning-bearing units above the word: the phrase, the sentence, the text. Meaning units above the text are speculative but perhaps can be encompassed by the notion of 'weltanschauung'. At this level, we have arrived at the limits of linguistics and are knocking at the door of thought.

Metaphor, then, is a non-literal, meaning-based, intersystem relation which derives from the general strategy:

"Ignore the (literal) anomaly at one level, if a significant construction can be derived at a higher level."

This strategy can be supported by examining a sample of metaphors. (The +/- notation is a rough notation of semantic anomalies at the word level; its use does not endorse any particular semantic theory). The following examples have been drawn from arbitrary sources. They are intended to confirm the general strategy of decoding metaphors by moving from one system to another.



1. "But ye loveres, that bathen in gladnesse"

(Chaucer, Troilus and Criseyde I)

Literal Anomaly: "bathen" and "gladnesse"

Level: word - meaning ('bathe' requires + liquid)

Non-literal meaning (approximate):

The lovers approach to gladness  
is to enjoy it as one would enjoy  
a bath, with overtones of total  
immersion, fresh cleanliness,  
purity, etc.

Level: phrase-meaning

2. "The sky rejoices in the morning's birth"

(Wordsworth, Resolution and  
Independence)

A. Literal Anomaly: "rejoices" and "sky"

Level: word - meaning ("rejoices" requires  
+ animate)

Non-literal meaning (approximate):

The sky, an inanimate object, gives  
the appearance of exuberant happiness,  
linking the ambiguity of brightness

Level: phrase - meaning

B. Literal Anomaly: "birth"

Level: word - meaning ("birth" requires  
+ animate)

Non-literal meaning (approximate)

The morning arrives as if delivered  
by night, linking the shared meaning  
of 'beginnings' for dawn and birth.

Level: phrase - meaning

3. "Susan Smith recently embarked on a three month  
mousseline marathon".

(The Pleasures of Cooking

Vol. V, No. 6, p. 2)

Literal Anomaly: "mousseline" and "marathon"

Level: work - meaning ("marathon" requires  
+ running ?)

Non-literal meaning (approximate)

Smith researched, cooked and ate  
mousselines for such a long and  
tiring period that her effort was  
like running a marathon running race.

Level: phrase - meaning

N.B. Note the weakness of this metaphor, which through  
common use requires little decoding ie. "marathon"  
may soon literally equal any long and tiring effort.  
The sentence also contains a metaphorical use of  
"embark".

4. "Washington restaurants forced men to don strings around their neck".

(National Times, 29 July 1983 p. 8)

Literal Anomaly: Dress requirements for men and "strings".

Level: sentence - meaning (men wearing strings around their neck)

Non-literal meaning (approximate):

Some restaurants continue to enforce dress requirements which in themselves are meaningless; in this case, attention is drawn to the arbitrariness of one garment, the tie, by describing it as a string.

Level: text - meaning

N.B. Note that on the D-dimension, the primary and secondary subject are very close (in one sense, a tie is a string) and hence the sentence itself probably provides sufficient context to decode this meaning.

5. "Catch the eye".

(Southern Tasmania Telephone Directory, 1982, p. 26)

Literal Anomaly: "catch" and "eye"

Level: phrase - meaning

Non-literal meaning (approximate)

In the context of an advertisement advocating the use of bold print in

telephone directory entries, this idiomatic expression means something like "Attract the attention of the reader."

Level: text - meaning

N.B. The phrase here is co-extensive with the sentence hence the level of sentence - meanings is omitted.

6. "I will sketch what seems to me an appropriate framework."

(Reflections on Language,

N. Chomsky, p. 3)

Literal Anomaly: the sentence - meaning of drawing a plan of a particular physical structure.

Level: sentence - meaning (Chomsky does not provide an architectural drawing of a framework)

Non-literal meaning (approximate)

In the context of an introductory note to a general work of linguistics, Chomsky is indicating that he will provide a conceptual structure derived from his theoretical work.

Level: text - meaning

N.B. The metaphor is strengthened, in a traditional way, by the metaphorical use of "framework".

7. "Disco - the Vietnam of modern music".

(Graffiti, Hobart, 1983)

Literal Anomaly: "the Vietnam" and "modern music"

Level: word - meaning (the connection between  
"modern music" and "the Vietnam")

Non-literal meaning (approximate):

The diverse but powerful connotations of the Vietnam War are linked, as a criticism, to a particular genre of dance music. It draws upon Vietnam as an image for failure, madness, destruction, calculated folly, and mass manipulation, relating these outrageously to disco music.

Level: text-meaning

N.B. The slogan is a complete test although it is in this case co-extensive with the sentence.

8. "Until one dips into legal history ..."

(The Proof of Guilt, Glanville

Williams, p. 4)

Literal Anomaly: "dips" and "history"

Level: word-meaning ("dips" requires + liquid)

Non-literal meaning (approximate):

History is likened to a liquid mass which can be carefully but superficially encountered. "Dipping into history"

is a common-place metaphor,  
strengthened in this case because the  
author is a well-known authority on  
legal history who could hardly be  
described as "dipping in history".

Level: sentence-meaning

(A more complete appreciation of its significance  
requires a degree of knowledge about the author).

9. "Never in his life had he seen a river before - this  
sleek, sinuous, full-bodied animal, chasing and chuckling,  
gripping things with a gurgle and leaving them with a  
laugh, to fling itself on fresh playmates that shook  
themselves free, and were caught and held up again."

(The Wind in the Willows,

Kenneth Grahame, p. 5)

Literal Anomaly: "river" and its description

Level: phrase-meaning

Non-literal meaning (approximate):

The river is described in terms of an  
animal in an extended but coherent  
metaphor. It is most appropriate since  
the "he" is, in fact, the mole. The  
description draws on the life qualities  
of an animal and projects these onto the  
river.

Level: sentence-meaning

## 10. "The early bird catches the worm."

(Proverb)

Literal Anomaly: The proverb and the situation to which it is applied.

Level: text-meaning

Non-literal meaning (approximate):

He who gets up early in the morning will make the most of those situations where being early brings an advantage.

Level: context-meaning

N.B. No particular claims are being made here about the meaning level above the text level. For convenience, it is called "context".

## 11. "... my body itched with the desire to sleep."

(Lady Oracle, Margaret Atwood, p. 140)

Literal Anomaly: "itched with desire" and "body"

Level: word-meaning

Non-literal meaning (approximate):

The person was in need of sleep.

Level: sentence-meaning

N.B. Atwood actually converts a metaphor (the idiomatic expression "itching with desire") which draws upon a physical effect to describe a mental phenomenon, into one which describes a physical phenomenon. As a metaphor, it is a double-take.

## 12. "callous"

(Oxford English Dictionary)

Literal Anomaly: "Physically hardened" and the context  
of its application to human beings.

Level: word-meaning

Non-literal meaning (approximate):

unfeeling.

Level: word-meaning

N.B. Obviously, a good deal could be said about the  
extension of meaning at the word-level through  
the process of metaphor. It is a little beyond  
the scope of the present work.

Linguistics may describe the component systems of language,  
by specifying their rules and elements. But there exists  
a further potential for meaning by playing off one system  
against another. As in metaphor, this is done by creating  
an apparent "mistake" which is overt, and which is intended  
to be overcome or resolved by resorting to a different  
level or system which is able to over-ride the first  
system.



TABLE 1 - METAPHOR.

A.1. "The professor is nearing retirement."

Context: Conversation about an ageing professor.

$$M_1 = X_1 / Y;$$

where  $M_1$  = meaning

$X_1$  = sentence meaning

$Y$  = context.

2. "The old warhorse is ready to be put down".

$$M_2 = X_2 / Y;$$

where  $M_2$  = meaning

$X_2$  = sentence meaning

$Y$  = context.

In 2., there is an anomaly, in that —

$X_2$  +literal

$Y$  -literal,

When there is an anomaly, context overrides sentence meaning to produce meaning,

B.1. "an unmarried girl"

$$M_1 = A / B_1;$$

where  $M_1$  = phrase meaning

$A$  = subject

$B_1$  = descriptor.

2. "a bachelor girl"

$$M_2 = A / B_2;$$

where  $M_2$  = phrase meaning

$A$  = subject

$B_2$  = descriptor.

In 2., there is an anomaly, in that —

$A$  -male

$B_2$  +male.

When there is an anomaly, descriptor overrides selectional restrictions to produce phrase meaning.

At this point, it would be valuable if this general approach can be supported by data and conclusions from other research. To date, the most detailed work in linguistics has been done with those systems which are most discrete and concrete, that is, the phonemic system and the syntactic system.

### 3. The Phonemic System.

For an example of how the work of other theoreticians complements the work of De Beaugrande, a recent study by Charles Ferguson, "Phonological Development" (1980), has been selected.

Ferguson's aim, in this paper, is to "discuss phonological development as exemplifying cognitive processes which may operate outside phonology as well." (p.52). This contrasts<sup>s</sup> with the more usual emphasis on the acquisition order of phonemes and segments, and its relationship to adult phonology. He is not concerned with the physiology of production and perception, but rather with cognitive strategies.

Ferguson outlines some of the cognitive strategies used by children in their phonological development, and then turns to the creativity inherent in the phonological system; specifically the phonotactic constraints which permit the generation of many words which do not exist but which could exist; that is, as far as the phonological rules are concerned, the word is permissible. He also suggests that it is possible to break the phonological rules and produce a word which is not permissible.

He provides several examples:

1. /ŋaŋa/ — 'book' from 'songbook'
2. /ç/ instead of word-final /t d n p f/
3. /f/ instead of /tr dr kr pr/.

From the discussion, it is apparent that the strategy employed by the child is to achieve some discrimination in expression within the particular range of phonemes available to him. For example, in the second case, when word-final stops were not available to her, the child resorted to the voiceless palatal fricative in order to indicate the shortness of syllables ending in consonants.

This kind of inventiveness suggests that even at this early age, the language user is capable of adapting the rules of language to her needs. It also suggests that the overall purpose of using the rules is to be meaningful rather than to be rule-obedient; if necessary, a rule can be broken if it facilitates the communicative function. For the nature of a rule of language, see Gantz (1970),

#### 4. Relations Between Systems.

This brief example from the phonological development of the child should suffice to indicate that

in at least some levels of language there is scope for creativity, and that in each case the motivation is communicative intent. Other systems of language such as morphology, as well as more detailed aspects of particular systems such as stress patterns, need examination in order to determine whether the general pattern described by De Beaugrande is universal. For the moment, it is sufficient to note that it is general enough to encompass most aspects of language.

The question arises whether the overriding of one system always occurs for semantic motivations.

The examples provided by Ferguson suggest that it is indeed the desire to express oneself that leads to systemic breach. Breaching the phonological system is rare enough not to have a name, but it is still carried out in order to facilitate the discrimination of meaning. Breaching the meaning-based system(s) of language is metaphor. It seems that the desire to express oneself is more often resolved by adapting the meaning-based system(s) to one's needs. This may be so simply because it is the overriding function of language to mean. (Halliday, 1975). Phonology, syntax and morphology play a role auxiliary to this function and contribute to the meaning process indirectly. However, they can be focussed

upon for their own sake, thereby producing an effect similar to an artist focusing upon the effects he uses in his art. Magritte is an outstanding example of such an approach and he is paralleled in language by e e cummings.

The effect of concentrating on the form is interesting. It ensures that the viewer/listener is required to concentrate on what is normally taken for granted. One has to step out of the system to see the whole. The facile example of this effect is "concrete poetry" where the form is also the content. But more subtle effects can be achieved and, again, the visual analogy is Magritte (for example, "Common Sense", 1945, and "The Human Condition I", 1933). In language, artists like Thomas, Hopkins and Joyce consciously focus our interest on the words, as words, and then proceed to the specialised meaning. The phenomenon is by no means limited to the twentieth century, as the work of the medieval poet William Dunbar, indicates. Even a simple sonnet is an example of a textual form having a significance in its own right, separately from its content.

The paradox here is that one has to step out of the system to see what it means. This element of regression introduces a contradictory element into the process.

To stay within the system is to insist that sorrow cannot be sweet, that man is not a wolf, that he is not a reed, thinking or otherwise. To jump out of the system is to see the significance of what is being expressed, but at the cost of a higher level of consciousness. To understand a metaphor is to manipulate the system as a system; it brings a consciousness of language that can only be described in a meta-language such as the language used by linguists. The listener is suddenly aware that there is such a thing as the signal itself, and that it mediates meaning.

Now, this regression may be taken further, for it is conceivable - and in complex works of literature it often occurs - that metaphors are metaphorised so that one is embedded in the other. In its simplest sense, a whole text may be a metaphor, at the same time consisting of metaphors. A text may consist of a text; for example, a diary, which recounts the narrative, itself consisting of metaphors of one kind or another. This introduces the potential for self-reference which complicates the whole design; for instance, if the author is referred to in his own text; let alone his being himself one of his own characters, or using characters who speak directly to the author.

In a more general sense, the awareness of language as language introduces an element of self-reference within the linguistic system. Max Black (1968) describes this in the following way:

"Here we have a striking instance of one of the most remarkable features of language, its 'reflexive' capacity to become its own subject. This is absent from other forms of representation, or present only in a rudimentary and uninteresting form. There is no sense to the idea of 'music about music'; and maps of maps, or paintings of paintings, have little interest. By contrast, the power we have to talk about talking, by inventing auxiliary devices for the crystallization of linguistic and logical structure, is at the heart of the creative power of language. The interplay between the informal 'insight' expressed in unformalized language, and the formal or 'mechanical' properties, codified in a symbol system, deserves more attention than can here be provided " (p.102).

These are all potentialities introduced by the concept of metaphor, or rather by the language capacity upon which metaphor rests. System-switching is useful only as long as the system stays basically intact. There must be rules to be broken, and elements to juxtapose.

There is a basic entropy or wastage which suggests that the new creations either disappear or become part of the standard system. This entropy balances the creativity of systemic breach.

It is now possible to reinterpret the descriptions used by Chomsky which were detailed in Chapter 1.

"Rule-governed" creativity or syntactic creativity is an example of within-system creativity, in this case within the syntactic system.

It is creative only in the sense that it is unbounded because of the recursive properties of the syntactic system. The rules of the syntactic system are such that the elements can be strung together indefinitely. Similarly, given the phonotactic rules of the phonological system, it is possible, using the elements of the system, to produce strings which lack meaning just as the syntactic strings can be made to lack meaning through sheer complexity.

Now, it is possible to attach meaning to such strings, either through sheer innovation ("I hereby dub prote to mean 'an ideologically incompetent person'") or by structuring them in a particular way ("The House that Jack Built"). This is still only exploiting the within-system resources of the system. It is a formal aspect of the system, and does not deserve the description 'creativity'.



"Rule-breaking" creativity depends on the resources that are made available by the multiple system basis of language. Once there is a lexical system and a syntactic system, it is possible to let one system override the other. This is between-system creativity, and depends on using the relationships between systems.

As with within-system creativity, the motivation for using these resources is the communicative intent of the user. The purpose is to express meaning. Unlike within-system creativity, the attachment of meaning is not arbitrary (that is, an idiosyncratic linguistic event), but structured, in the sense that the rules of the two systems are utilised in a special way. Once that special use is perceived, then it is a simple matter for any member of the linguistic community to duplicate the process. In short, between-system creativity is accessible to all.

If the rules of the lexical system override the rules of the syntactic system, then there is metaphor at the phrase level or sentence level.

In "the bachelor girl", the syntactic system is breached because the descriptor is required to agree with the noun. There is instead a clash at the level +/- male. If there was no between-system creativity, then

the construction would be dismissed as faulty, similarly to the way in which "bachelor the girl" or "bachelor girl the" is dismissed. However, the lexical system can cope with the syntactic breach, by allowing the metaphoric process of non-literal comparison to establish that the meaning of the phrase is something like "the unmarried girl".

It is possible for the syntactic system to override the lexical system. The poetry of e e cummings frequently does this. In "Anyone Lived in a Happy How Town", the syntactic form is retained without a blemish, whilst the lexical items slotted into it are unusual. It is the rules of the syntactic system which allow for a meaning to be derived. Another graphic example of this is "Jabberwocky", where the syntactic system and morphological system combine to override lexical items which are idiosyncratic phonological creations.

Generally, it is far simpler to allow the meaning-based systems—the lexical system, the sentence-semantic system, the discourse system—to override the more formal systems—the syntactic, phonological and morphological—because the overall motivation for between-system creativity is the communicative intent.

The meaning-based systems appear to adapt themselves more readily to implementing this intent.

De Beaugrande's definition of creativity takes into account that the process of meaning-creation is not confined to linguistic activities: it reflects two essential aspects of the process. Firstly, it points out that creativity is the reconstruction of a given reality. This implies that there must first be awareness of that reality, but also the awareness of the possibilities for changing that reality. In the case of language, the given realities are the systematic facts of language. Once they are perceived as a system of rules and elements, that knowledge can be exploited.

Secondly, the definition emphasizes that the process must be a public process. Unless the derivation of the reconstructed reality is accessible to others, it remains an idiosyncratic construction, without public meaning and unlikely to be of lasting value. It will cease to exist when its creator ceases to exist. Only if the reconstruction of linguistic reality is accessible to others can it be considered as a creative thing. In the case of language, the creator therefore, still uses rules, but in new ways. It is the overt derivation of this new use that allows for the creation to be made public.

The tension between private construction and public perception is part and parcel of the attraction which this fundamentally human activity of reconstructing and reinterpreting reality has for many individuals.

## 5. Creativity and Language.

What has been attempted in this chapter is a demonstration of how language is creative. That language is creative is patently obvious and has been commented upon by most theorists. And yet it has never been a formal part of linguistic description, except in the trivial sense of within-system creativity which is a formal function of any system based on rules and elements.

Descriptions of language as creative have so far belonged to the "pious faith" category of linguistic terminology. It is suggested that there is no reason why the creative aspect of language should not be formalised and taken beyond the mere description of certain phenomena as creative. Creativity is a formal aspect of a complex intersystem, where the rules and elements of each system are subject to modification in the light of the rules and elements of other systems.

Something like Wheatley's (1970) Overriding Rule still exists, but it has grown now into something close to an expression of the function of language: overall meaning or significance. Whenever a language user is faced with a linguistic signal, he approaches it with the intent of deriving meaning from it and determining its significance. That is the only aspect of the language process which is immutable.

Here again we are reaching the limits of language and approaching the cognitive domain. Nevertheless, there is something essential in this junction between thought and language. We firmly expect people to be meaningful in their actions and their utterances. We do not expect people to make meaningless utterances, and we need to have sound evidence before we actually believe of anyone that his utterances are meaningless. If the meaningless patter of a severe schizophrenic is examined, then the natural temptation is to "read meaning into it".

There is a vast range between the literally meaningful and the meaningless. This range is the inspiration for wisdom, comedy, and beauty. It is made possible by the systematic nature of language, but uses this systematicity by breaking it. It is a vastly productive capacity made by language, but is not itself directly a part of language.

All the rules and elements of the system are subject to modification, thereby vastly increasing the expressive power of the system. Theoretically, it might be possible to specify all the modifications which are possible. However, the resultant figure would be meaninglessly large; and possibly indefinitely large because of the open-ended nature of some systems.

This only points up once again the vast resources at the disposal of the language user. It is a matter of skill and talent that the creative language user can produce texts which exploit this resource. In one sense of the word, such texts are more meaningful (going further beyond the meaning capacity of the various systems) and therefore, more significant than normal every-day uses. Because of the public nature of the language resource, such creative language use is thoroughly interesting. It is, then, a matter for aesthetic assessment whether such usage is successful or not.

## 7. CONCLUSION.

The discussion of creativity in language and, as a special case of this creativity, metaphor, has shown that any conception of language that is confined to an "elements-and-rules" description is unable to account for certain language phenomena. Only if language is seen as a system of various independent systems, can a reasonable explanation be made of phenomenon such as metaphor.

This conclusion suggests that language is a far more complicated arrangement than the common linguistic view has suggested to date. By trying to include metaphor, and, more generally, creativity, in the description of language, we have possibly swapped Chomsky's mystery for a higher level of complexity.

However, this new complexity is preferable to a description which, perforce, closes its eyes to some utterly common language phenomena such as metaphor. Further, this complexity can be properly investigated and the properties of language which contribute to it can now be properly formalised.

In a way, this requires a breadth of linguistic expertise which runs against the grain of scientific specialisation. Linguistics has developed, and grown into a range of specialised inquiries, with few scholars acquainted with detailed knowledge outside their own area of expertise.

Ultimately, it will be necessary for an eclectic effort of synthesis to be made. This is so because linguistics has a common objective for all its diverse inquiries: to understand language. Whilst any one particular inquiry may aim to understand only a small component of language, there is an unspoken acceptance that the ultimate aim is to understand the whole.

Specialisation, therefore, has been accompanied by a trend to generalisation. This is represented by those researchers who constantly extend the boundaries of legitimate linguistic inquiry. In particular, text linguistics and discourse analysis have reviewed much of earlier linguistic research and put it into a broader context. The linguistics of the sentence has thus been incorporated into the linguistics of the text or of the utterance. These new perspectives have demanded a re-examination of earlier boundaries. Just as the Chomskian



revolution ended the disregarding of sentence-meaning, so the text linguists and discourse analysts are ending the disregarding of meaning above the sentence. The structure and meaning of the sentence is no longer the beginning and end of linguistics.

In a small way, this present study has tried to support this changing perspective. Creativity, in general, and metaphor, in particular, can only be approached by a linguistics that is cognisant of context and text. A structuralism based on the sentence can only dismiss metaphor as an aberration. A structuralism based on the text or the utterance accepts metaphor as a formal capacity of language.

The formal nature of this capacity is crucial since otherwise it would be a trivial aspect of language, one that is not subject to precise description. A description is provided in this study. However, the extent to which this description is completely formal is questionable. This is so because any exhaustively formal description must await greater descriptive precision in the open-ended systems of language — lexis, semantics, cognition.

Further, it is not at all certain what an exhaustively formal description of the creative capacity of language would be like. It is unlikely that a mathematical formula would be sufficient for such a description, since we are dealing with intersystem relations which are based on meaning. For a comparison, we may need to examine other meaning-based systems such as traffic signs, or flag signs. An unusual juxtaposition of two flags may, in certain contexts, produce an effect similar to metaphor.

Therefore, this study assumes a preliminary nature. It is by no means definitive and aims only to be suggestive. Further work in text linguistics seems to hold the key to whether the conception of language suggested here is useful or not. And that is beyond the scope of this study.

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